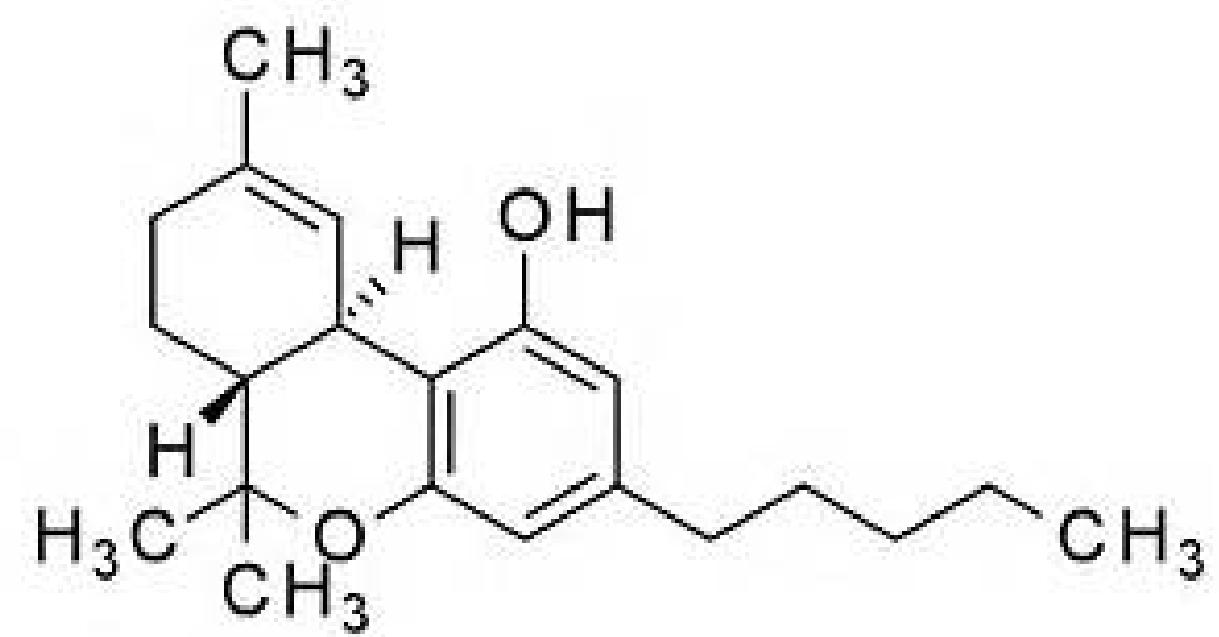
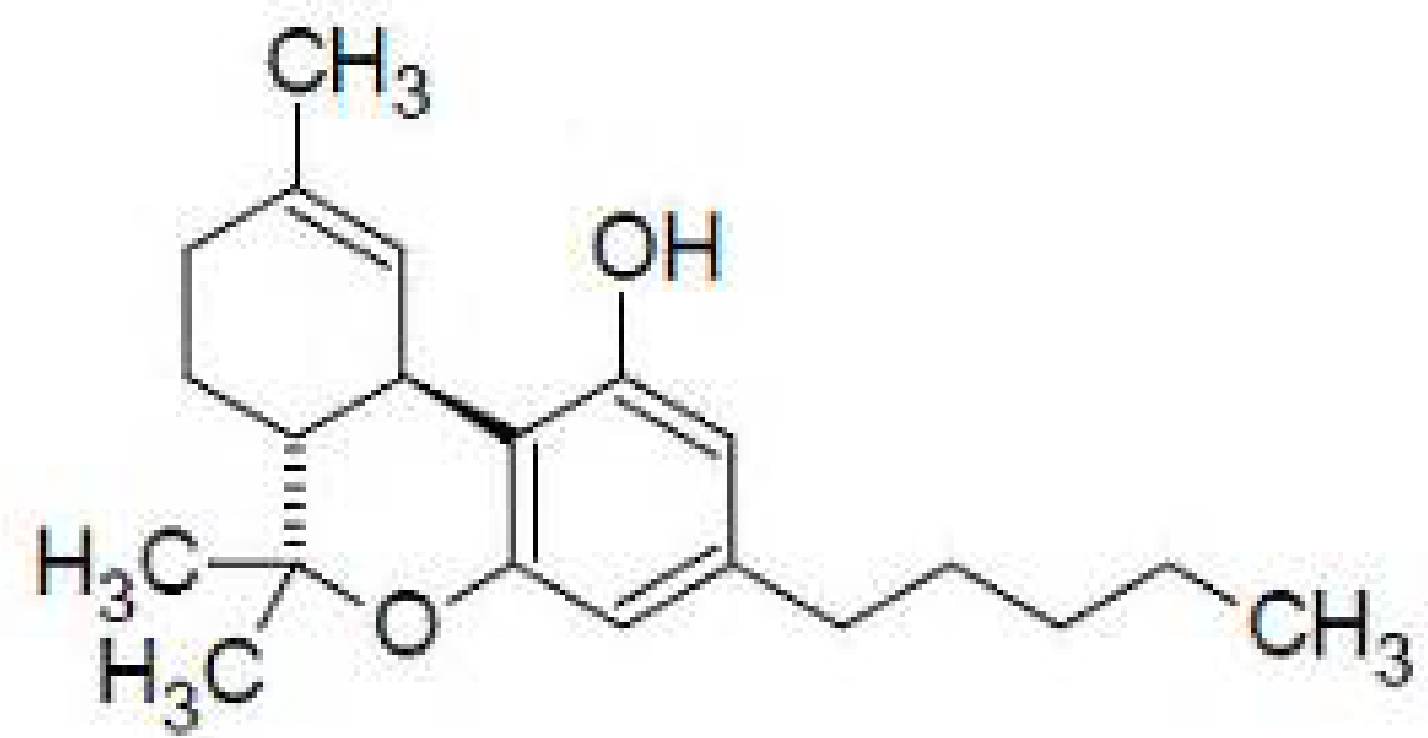
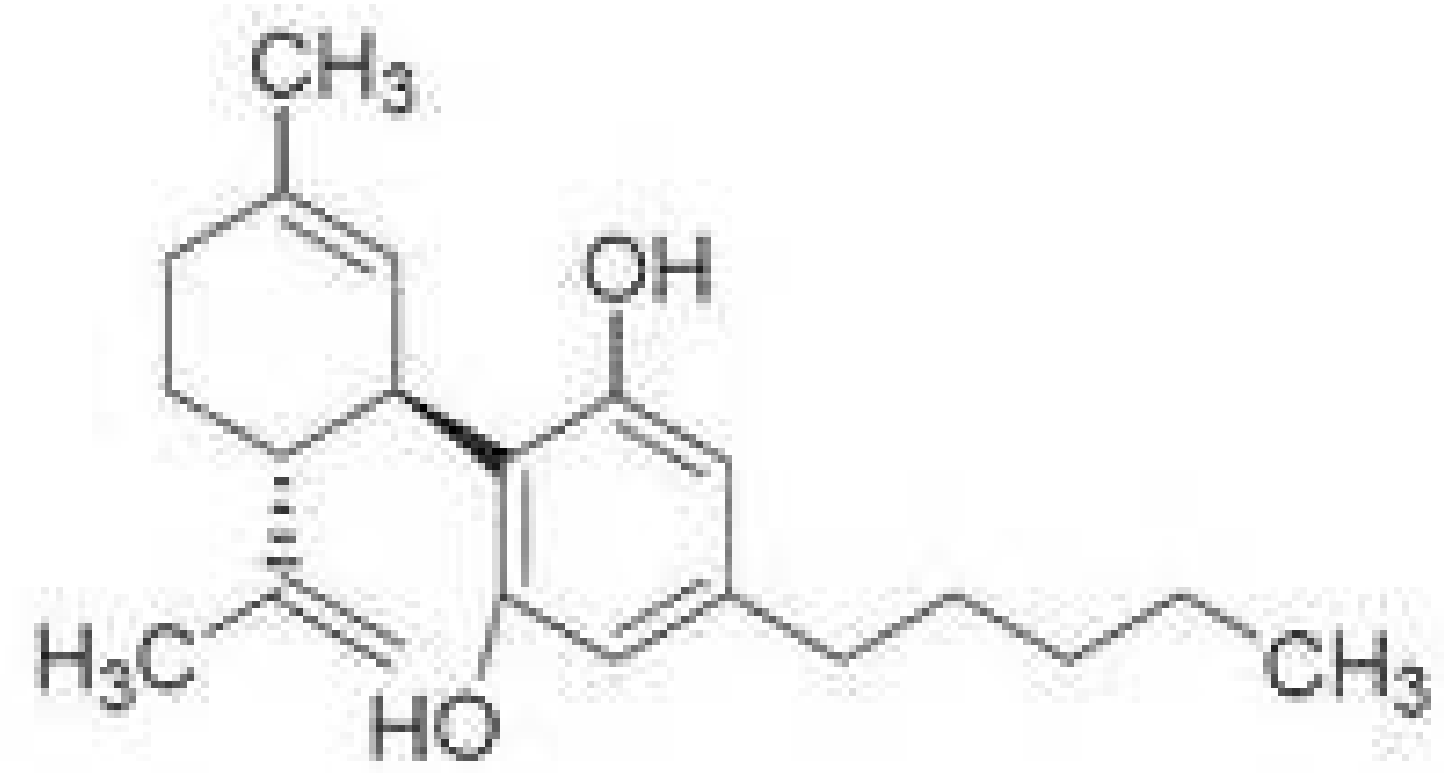
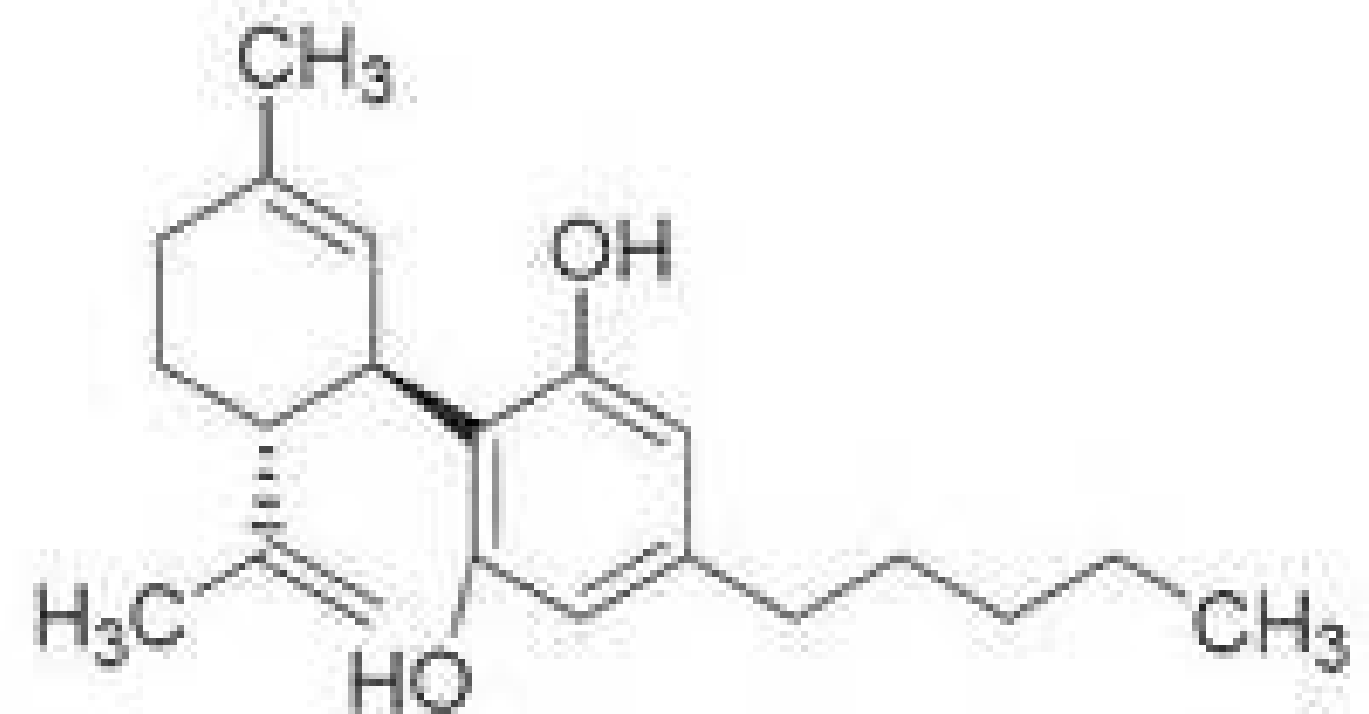


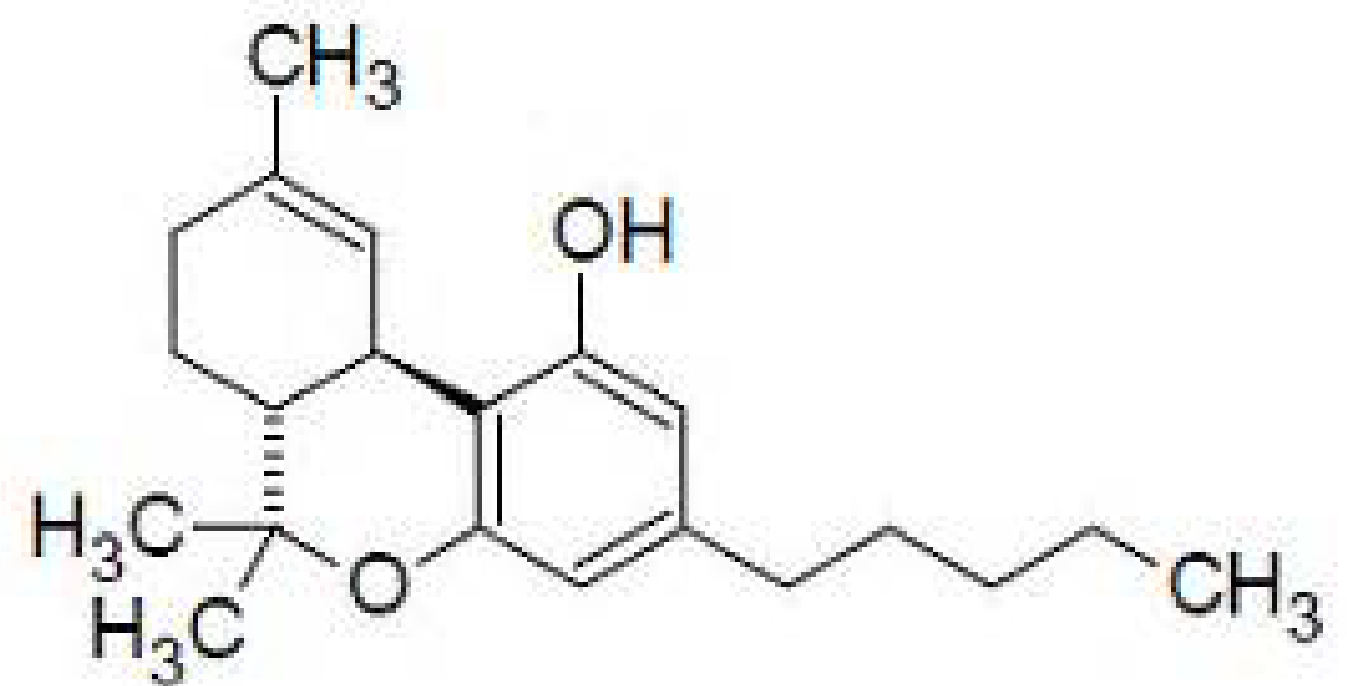
Cannabis, Opioids, and Public Health Implications

Kenneth Finn, MD
kfinn0731@gmail.com

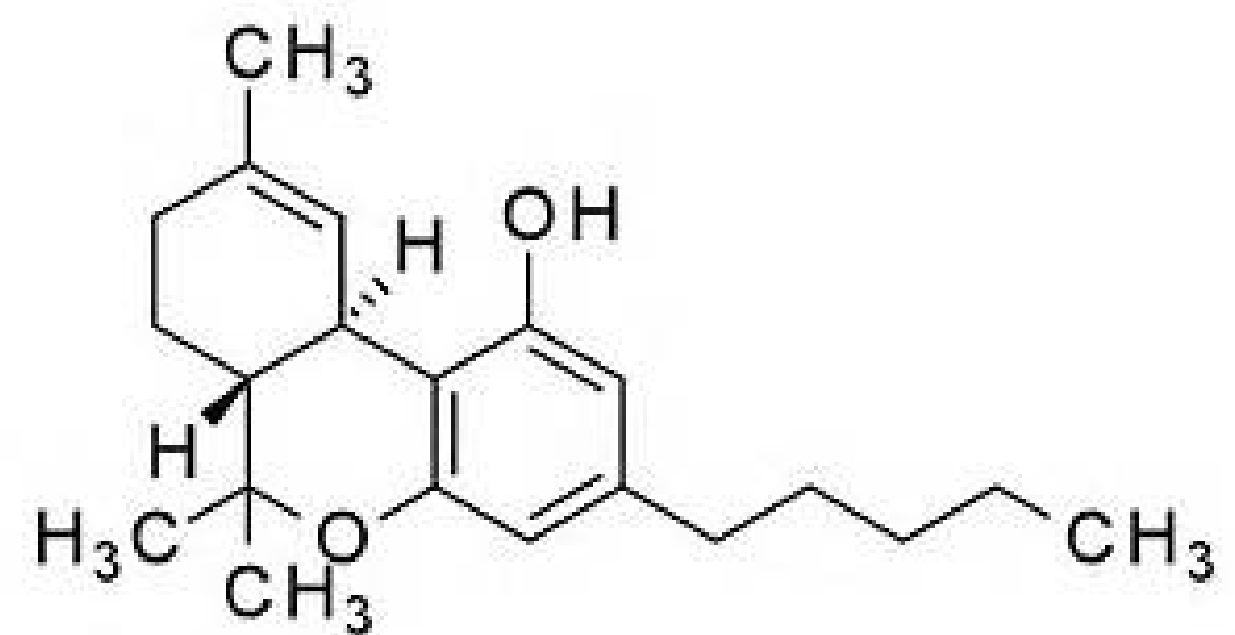




CBD



Dronabinol



THC



Terminology

- Cannabis-based medication
 - Registered medicinal cannabis extracts with defined and standardized THC and THC/CBD content should be classified as 'cannabis-derived' or 'cannabis-based' medicines.
 - Examples: Epidiolex®, Sativex ®(natural); dronabinol (semi-synthetic); nabilone (synthetic)
- Medical cannabis
 - Cannabis plants and plant material, for example flowers, marijuana, hashish, buds, leaves or full plant extracts used for medical reasons.
 - Poorly regulated and poorly tested for contaminants



Number of patients

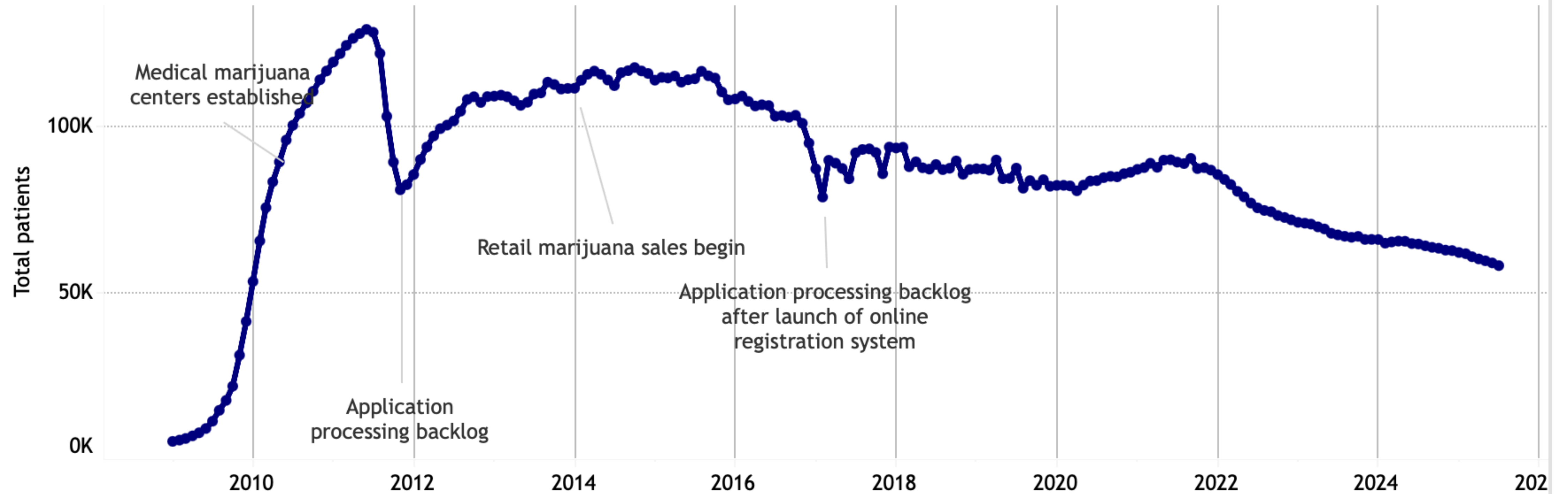
Data Visualization

Use this drop down to choose a view

Number of patients ▼

Date

Last 26 years ▼

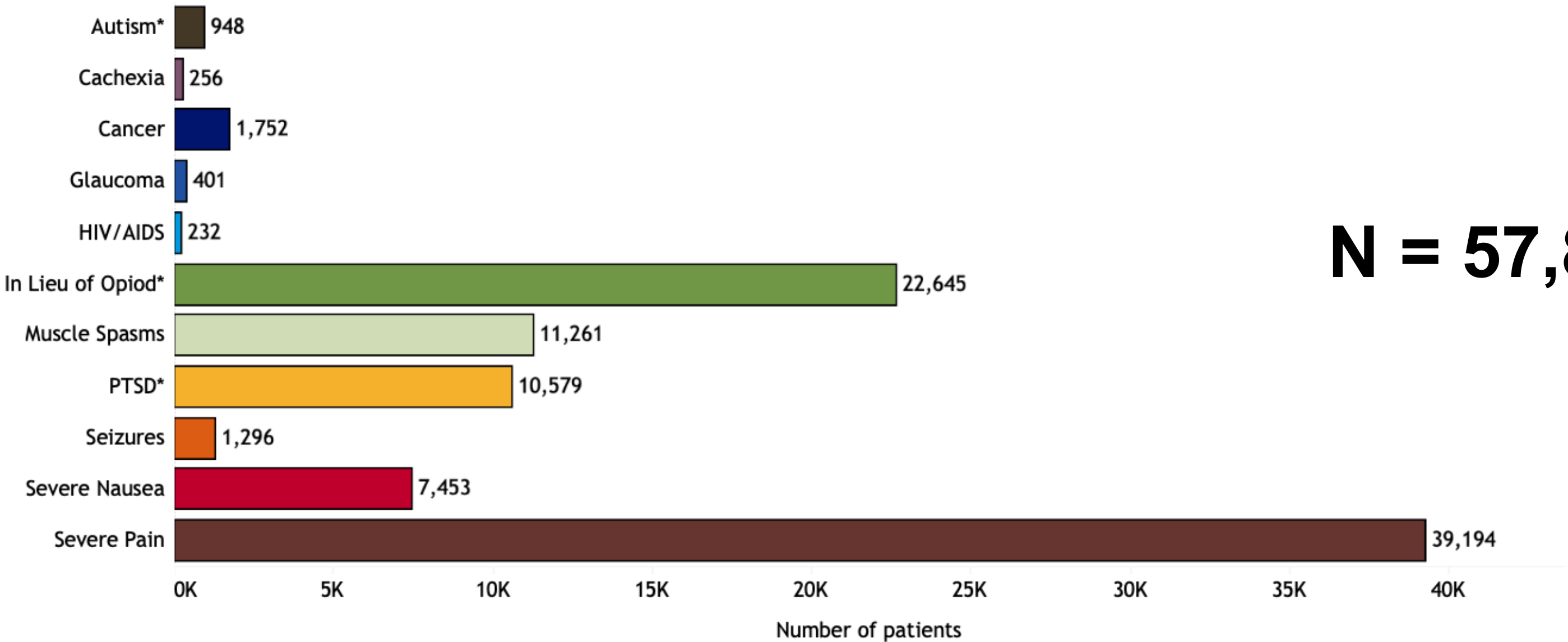


<https://cdphe.colorado.gov/medical-marijuana-registry-data>

Use the drop down to choose a month and year

July 2025

Medical Marijuana Registry reported medical conditions



Condition

Autism*

Glaucoma

Muscle Spasms

Severe Nausea

Cachexia

HIV/AIDS

PTSD*

Severe Pain

Cancer

In Lieu of Opiod*

Seizures

2017 - PTSD added as qualifying condition.
2019- Autism Spectrum disorder and any condition for which a physician could prescribe an opioid were added.
All other conditions were established in 2000 under Amendment 20.
*Disabling conditions. All eligible provider types may recommend for these conditions.
HIV/AIDS numbers were not reporting accurately from 2017-2020.

Medical Marijuana CO

- January 2024; CO Legislative Report
- 3 providers made 25% of all recommendations (one patient every 20 minutes)

1001-2000	9
2001-3000	3
3001-4000	4
4001-5000	0
5001-6000	1
6001-7000	2

https://drive.google.com/file/d/1r7i_rWzFrssfzVUv_8fCwjJbNDavfmI4/view

Doctors

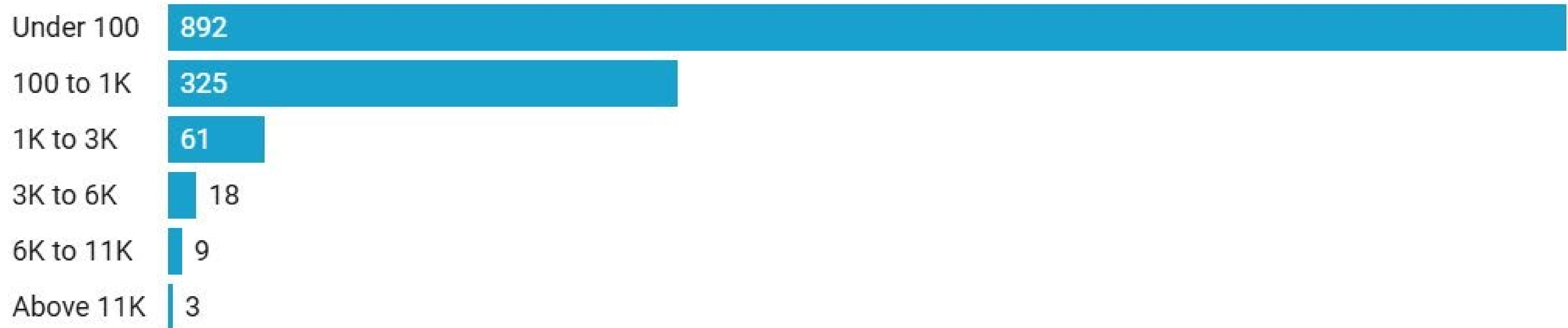
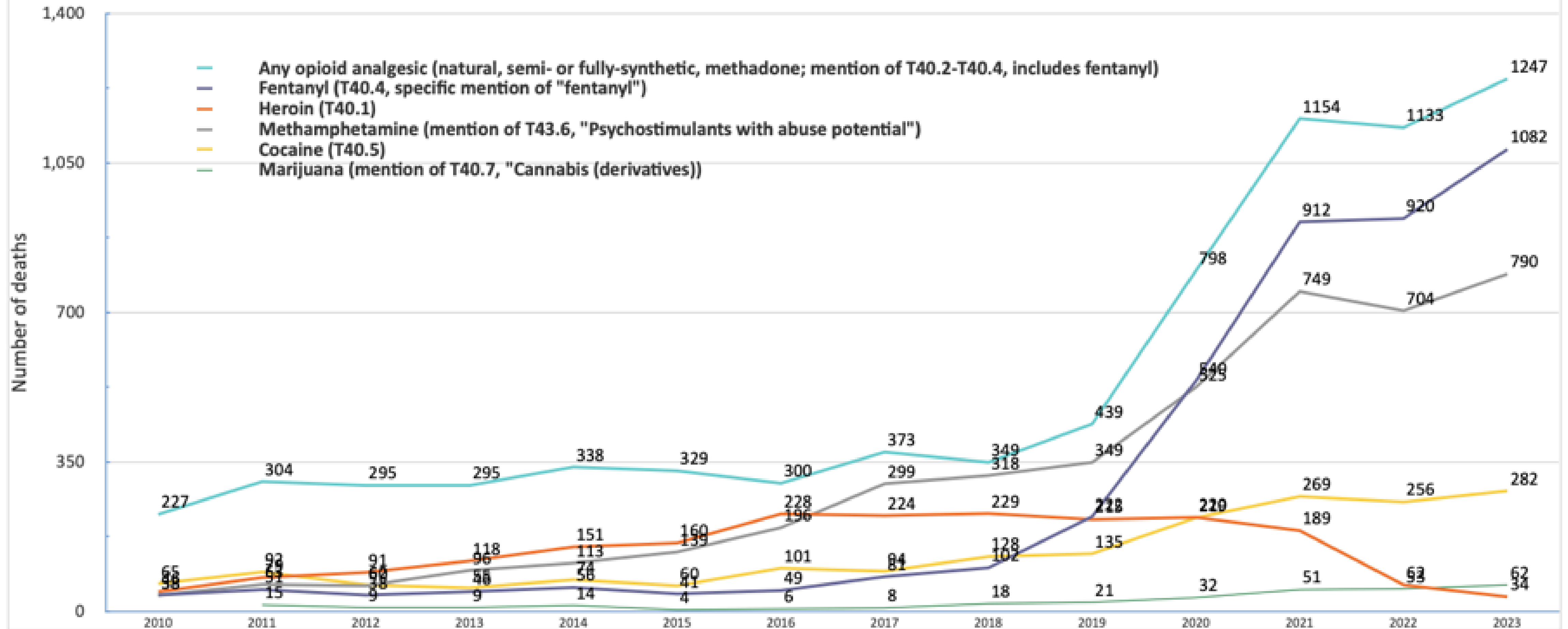


Chart: Ed Mahon / Spotlight PA • Source: Pennsylvania Department of Health data / Spotlight PA analysis • [Get the data](#) • Created with [Datawrapper](#)

<https://www.spotlightpa.org/news/2025/03/pennsylvania-medical-marijuana-program-doctor-oversight/>

Drug overdose deaths by category of specific drug involvement: 2010-2022

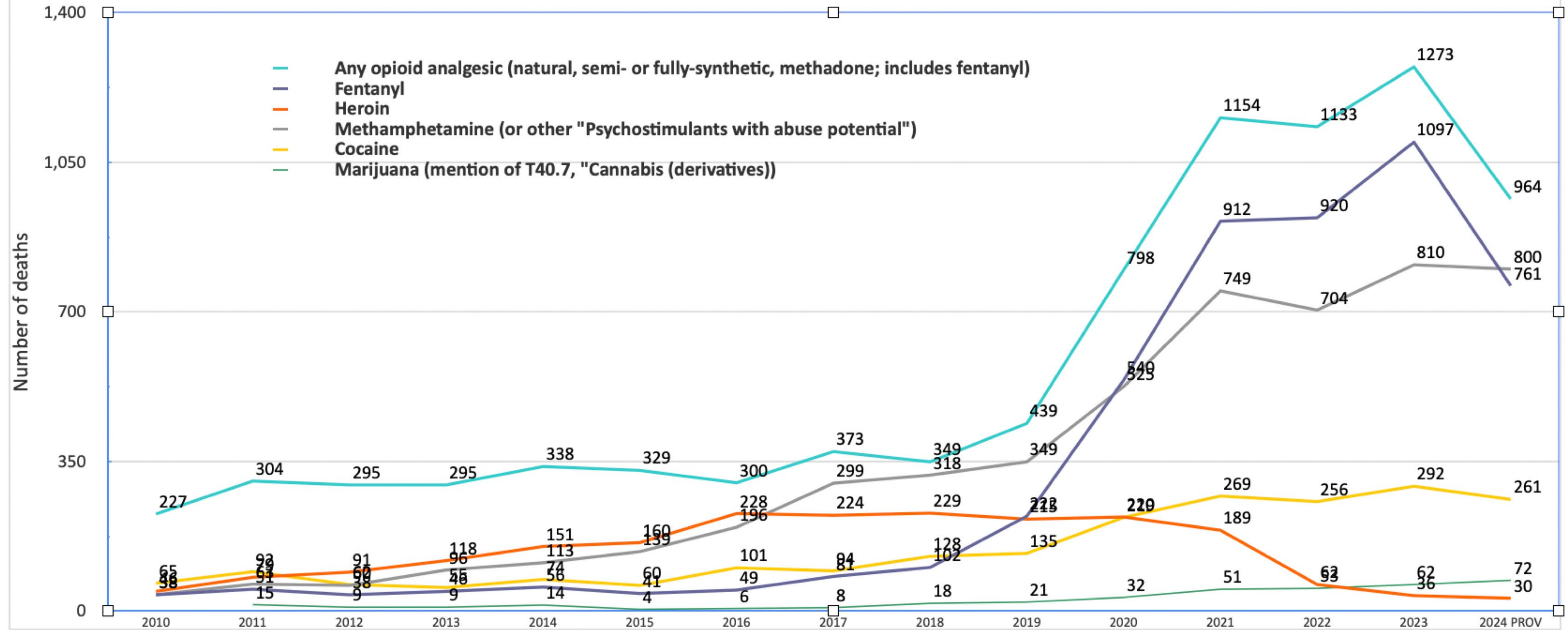
Colorado residents,



Deaths involving more than one substance will be counted in each respective category..
Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Drug overdose deaths by category of specific drug involvement: 2010-2024

Colorado residents,

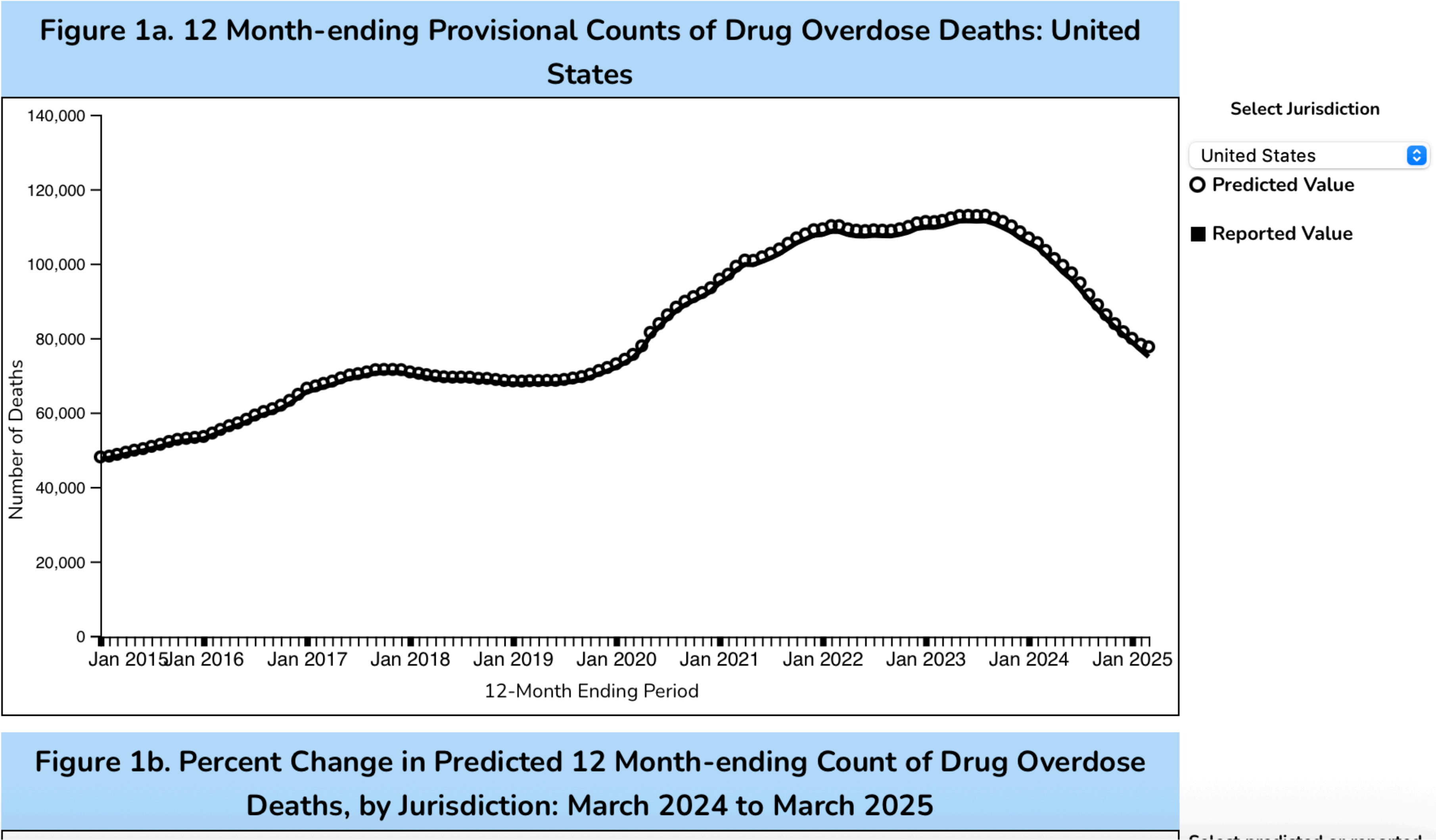


[Edit Data References](#)

Deaths involving more than one substance will be counted in each respective category.
Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

12 Month-ending Provisional Number and Percent Change of Drug Overdose Deaths

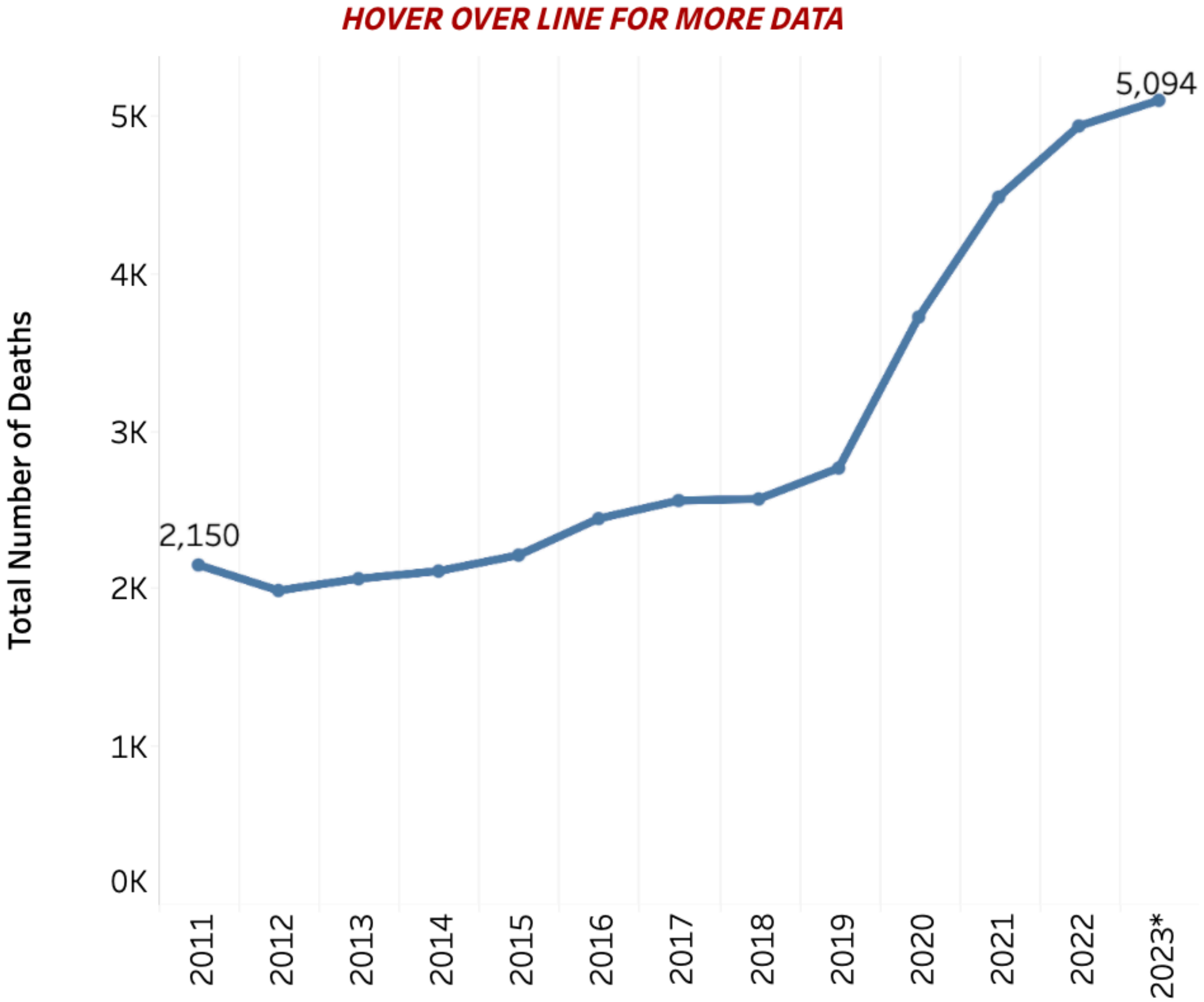
Based on data available for analysis on: August 3, 2025



Select a Drug Type

All Drugs

STATEWIDE UNINTENTIONAL DRUG POISONING DEATHS
BY DRUG TYPE, 2010-2023*
All Drugs

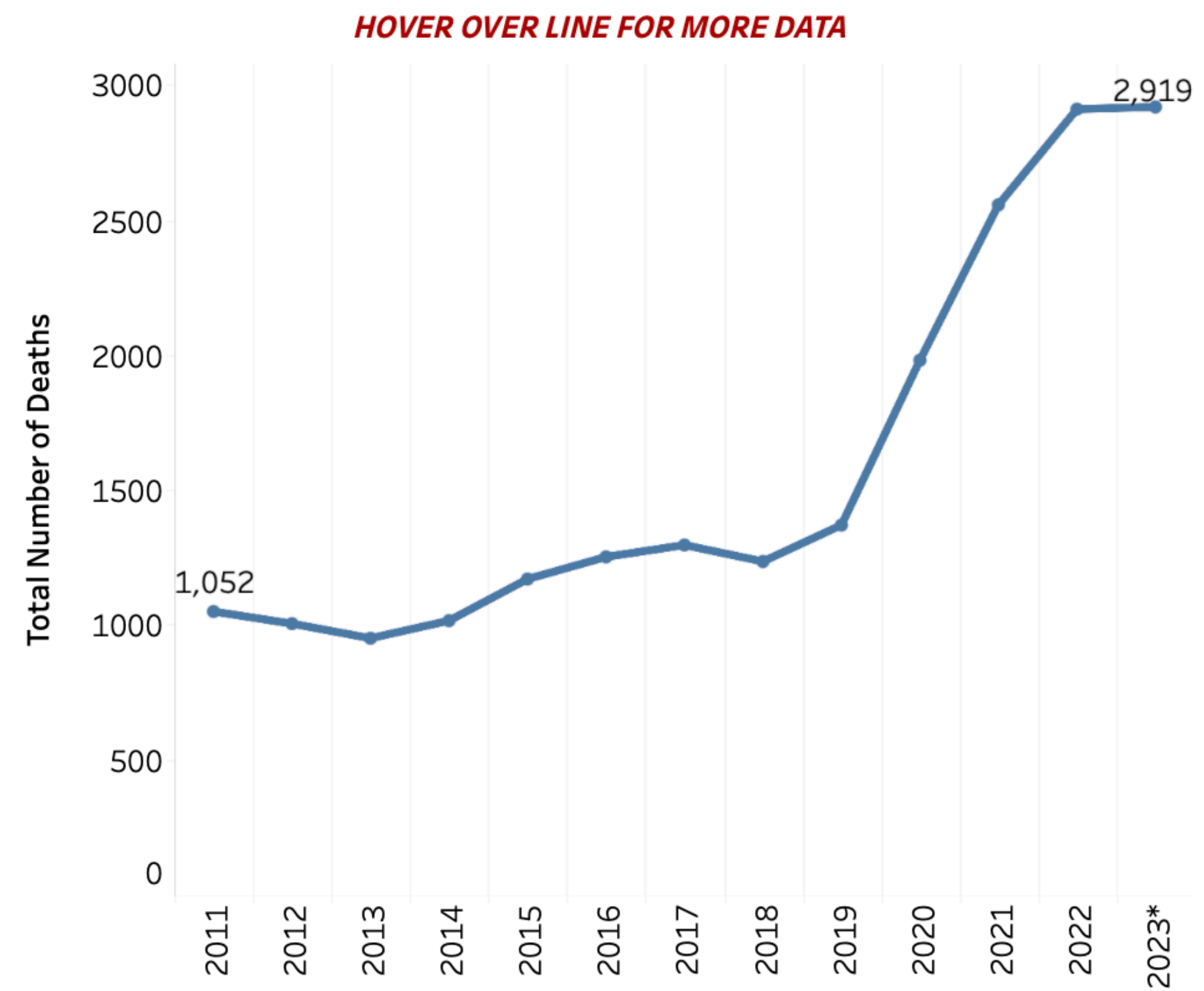


Source: 2011 to 2023* Death Certificate Data, Texas Department of State Health Service, Vital Statistics Section

Select a Drug Type

All Opioids

STATEWIDE UNINTENTIONAL DRUG POISONING DEATHS
BY DRUG TYPE, 2010-2023*
All Opioids

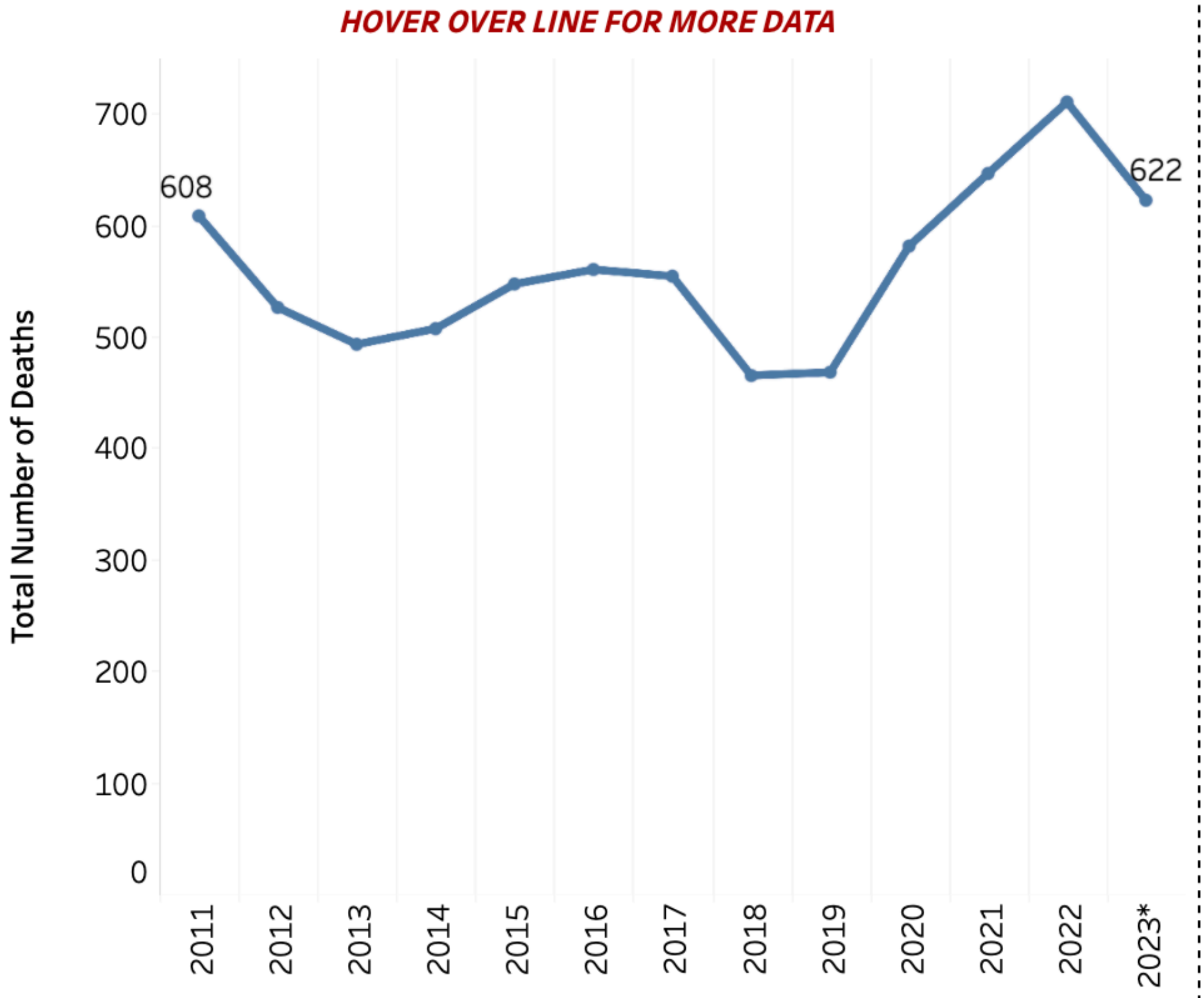


Source: 2011 to 2023* Death Certificate Data, Texas Department of State Health Service, Vital Statistics Section

Select a Drug Type
Commonly Prescribed Opioids

STATEWIDE UNINTENTIONAL DRUG POISONING DEATHS BY DRUG TYPE, 2010-2023*

Commonly Prescribed Opioids

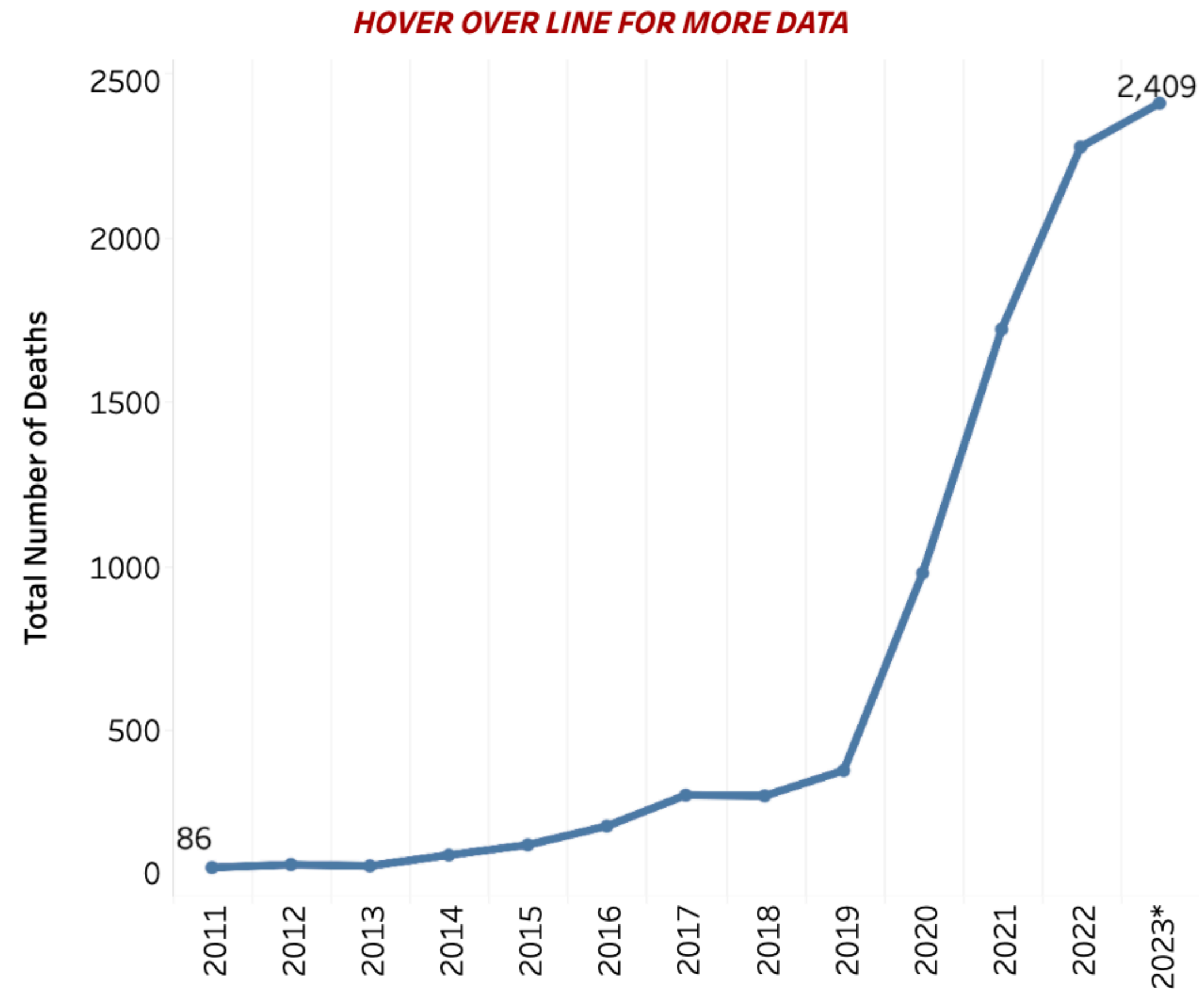


Source: 2011 to 2023* Death Certificate Data, Texas Department of State Health Service, Vital Statistics Section

Select a Drug Type

Synthetic Opioids

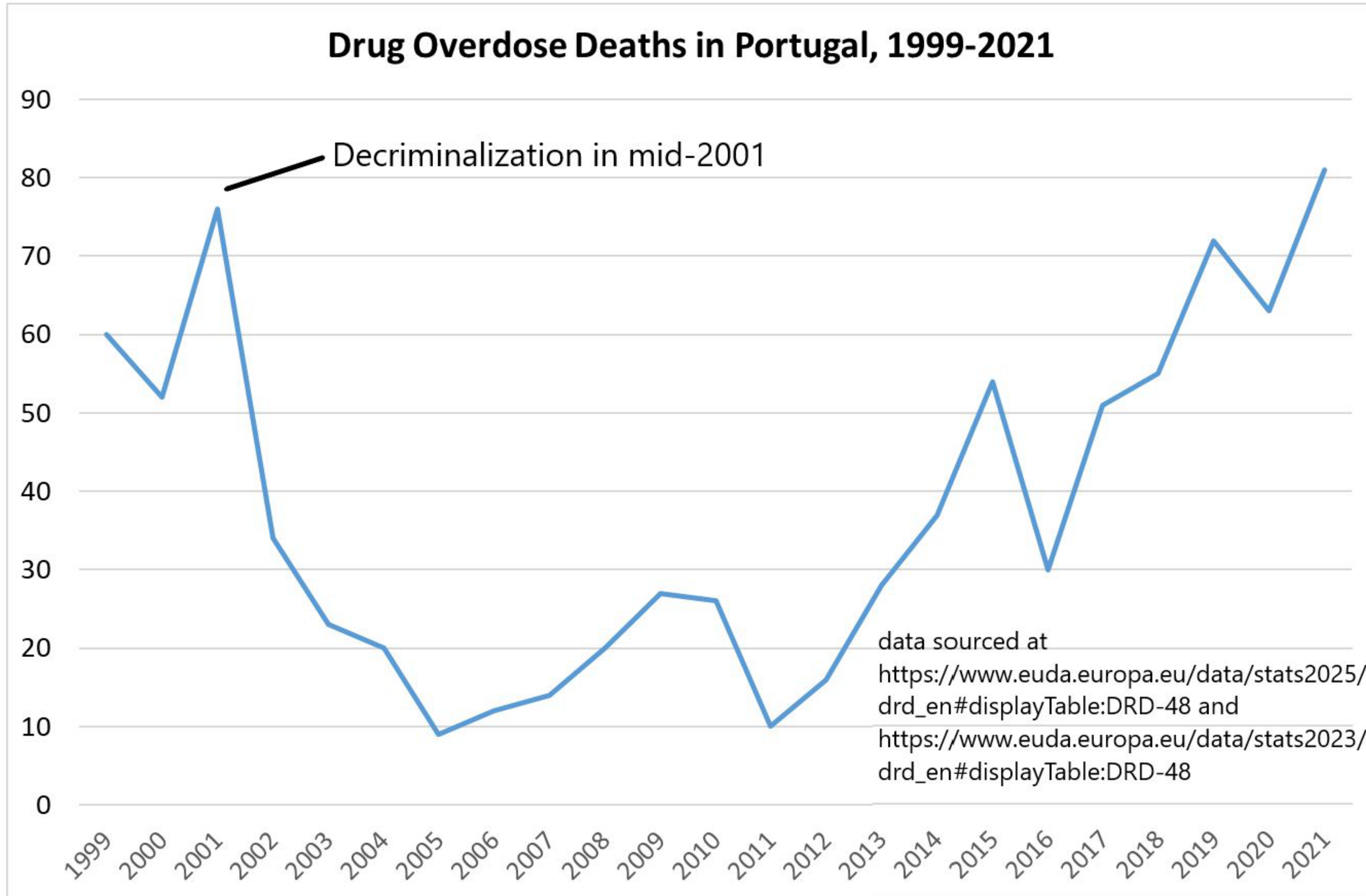
STATEWIDE UNINTENTIONAL DRUG POISONING DEATHS
BY DRUG TYPE, 2010-2023*
Synthetic Opioids



Source: 2011 to 2023* Death Certificate Data, Texas Department of State Health Service, Vital Statistics Section

<https://healthdata.dshs.texas.gov/dashboard/drugs-and-alcohol/all-drugs/drug-related-deaths>

Portugal



Cannabis and Opioid Relationship

- April 22, 2022, (Bleyer, Barnes, Finn)
 - Marijuana is supposed to help reduce **opioid dependence** and mortality.
 - Opioid **deaths have increased** more where marijuana was legalized
 - Fentanyl **death rates higher** in marijuana legal states

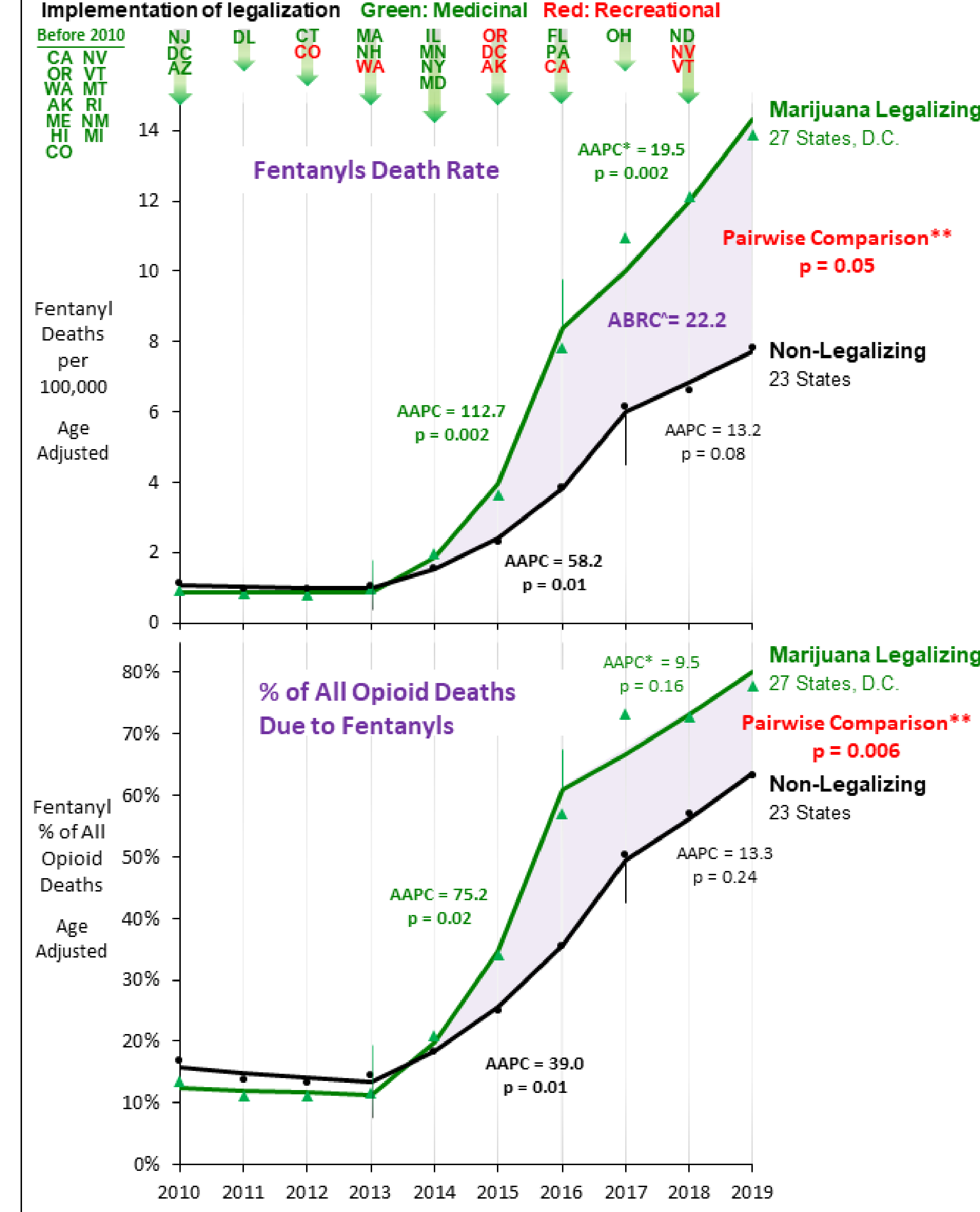


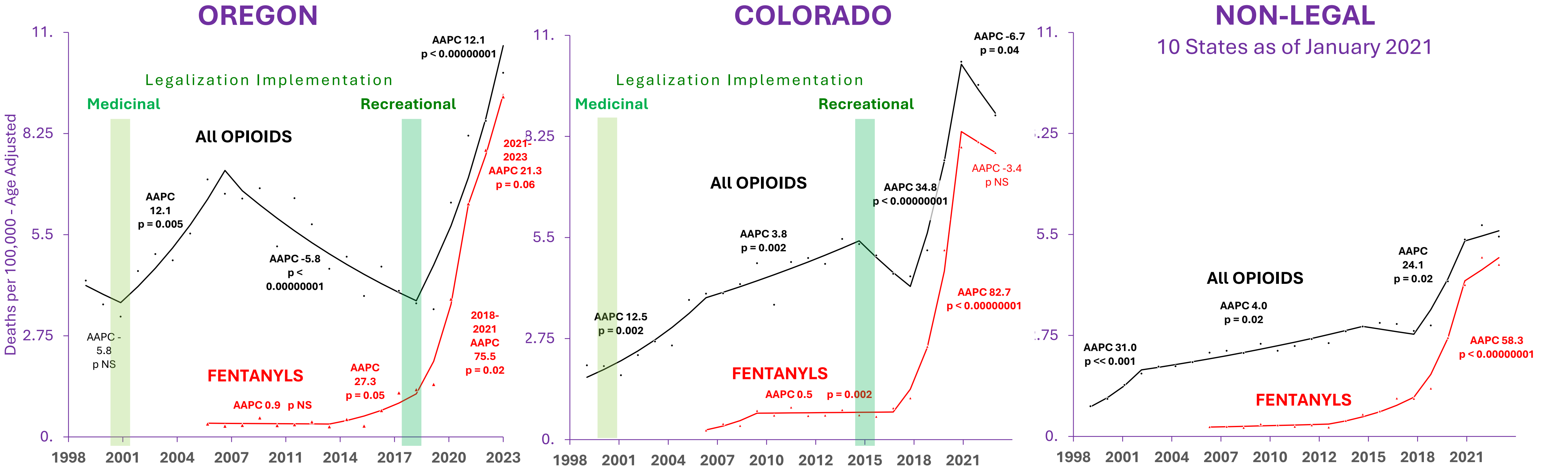
Figure 3 **Joinpoint/AAPC* Analysis of Pre-Pandemic Annual Mean Fentanyl Death Rate** (upper panel) and **% of All Opioid Deaths due to Fentanyl** (lower panel), 2010-2019, U.S., **Aggregate of Legalizing Jurisdictions as of 2019 vs. Non-Legalizing Jurisdiction.**

* AAPC—average annual percent change ** Non-parallel joinpoint analysis,

^ ABRC - area between the regression curves, in deaths per 100,000

Data Source: CDC WONDER [6]

Joinpoint/Average Annual Percent Change (AAPC) Analysis of Annual
All Opioid & Fentanyl Overdose Death Rate, 1999-2023
Data Source: CDC WONDER



Cannabis and Opioid Relationship

- February, 2023; Journal of Health Economics
- Legal medical marijuana, particularly when available through retail dispensaries, is associated with higher opioid mortality.

Cannabis and Opioid Relationship

- The **number one risk factor** for **adolescent** opioid misuse is having **EVER** use marijuana (lifetime use; YRBS, 2020)
 - https://www.cdc.gov/mmwr/volumes/69/su/su6901a5.htm?s_cid=su6901a5_w
- The **predominant predictor** of **adult** opioid misuse is having used marijuana before the age of 18 (Wadekar)
 - <https://www.sciencedirect.com/science/article/abs/pii/S0376871620300041>
- After 3 years of first trying marijuana vs. opioids, marijuana has a much higher percentage of addiction in **adolescents** (NIH; JAMA Pediatrics, 2021)
 - <https://www.nih.gov/news-events/news-releases/younger-age-first-cannabis-use-or-prescription-drug-misuse-associated-faster-development-substance-use-disorders>

STUDY SUBJECTS (FIRST TIME USERS)	ADDICTION RATE AFTER 1 YEAR	ADDICTION RATE AFTER 3 YEARS
Cannabis (age 12-17)	10.7%	20.1%
Cannabis (18-25)	6.4%	10.9%
Opioid (12-17)	11.2%	10.6%
Opioid (18-25)	6.9%	7.3%
Cocaine (18-25)	5.6%	6.4%
Heroin (18-25)	30.9%	42.5%

Characteristics of patients with non-cancer pain and long-term prescription opioid use who have used medical versus recreational marijuana

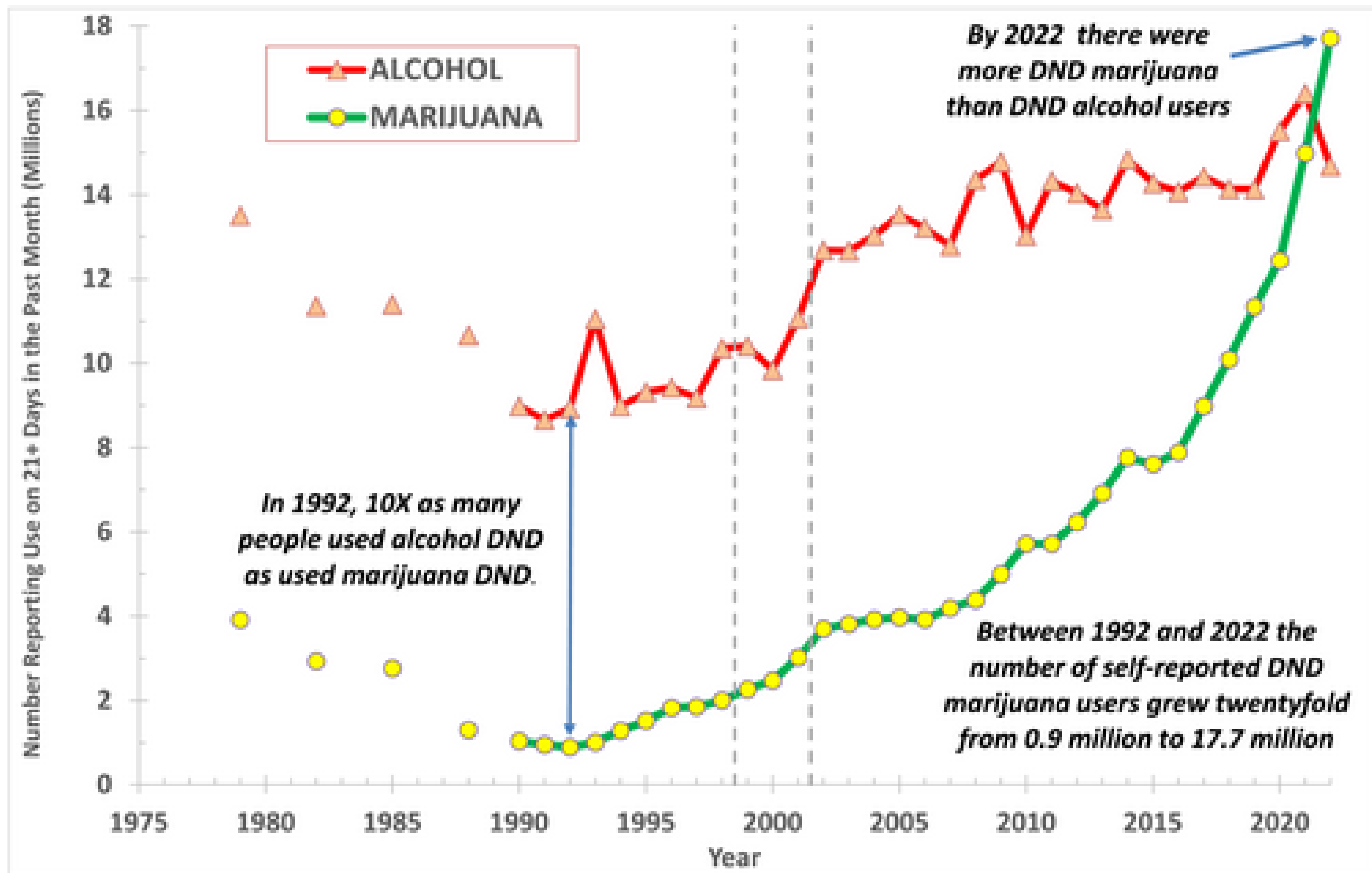
- February 2024; Journal of Cannabis Research
- After controlling for all confounders, lifetime recreational marijuana use, as compared to no use, was significantly associated with increased odds of daily prescription opioid use
- Lifetime recreational use is associated with more than a 60% odds of being a daily prescription opioid user

The prevalence of cannabis use disorders in people who use medicinal cannabis: A systematic review and meta-analysis

- April, 2024; Drug and Alcohol Dependence
- Management of chronic pain with medicinal cannabis were associated with an elevated risk of CUD
- Individuals using medicinal cannabis in the past 6–12 months, the prevalence of CUDs was 29%
- Individuals using medicinal cannabis for chronic pain who developed CUDs were more likely to have greater symptoms of pain

Changes in self-reported cannabis use in the United States from 1979 to 2022

- May 2024; Addiction
- Trends in cannabis use in the United States parallel corresponding changes in cannabis policy
- Declines during periods of greater restriction and **growth** during periods of policy **liberalization**
- Growing share of **cannabis consumers** report daily or near daily use, and their **numbers now exceed** the number of daily and near daily **drinkers**



Co-administration of cannabinoids and opioids: a scoping review of human experimental studies

- July 2024; Pain Medicine
- Co-administration of cannabinoids and opioids **did not consistently improve** pain outcomes
- **Available evidence** directly investigating the pharmacodynamic effects following co-administration of cannabinoids and opioids for non-analgesic outcomes is **scarce** and suffers from a lack of methodological reporting

https://academic.oup.com/painmedicine/advance-article-abstract/doi/10.1093/pm/pnae024/7638809?redirectedFrom=fulltext&login=false#xd_co_f=NWQ4YjJlZDctMGM0Yy00jNDU4~

Association of cannabis use with patient-reported pain measures among adults with chronic pain in US states with medical cannabis programs

- September 2024; Reg. Anesth. Pain Med.
- Active cannabis use was associated with **higher scores for pain intensity and pain interference** compared with never use
- People with chronic non-cancer pain who used cannabis for pain reported **worse pain measures** and **greater burden** of chronic pain conditions

Safer Opioid Supply, Subsequent Drug Decriminalization, and Opioid Overdoses

- March 2025; JAMA Health Forum
- British Columbia
- Neither the **safer supply policy** nor the subsequent **decriminalization** of drug possession appeared to alleviate the opioid crisis.
- Instead, both were associated with an **increase** in opioid overdose hospitalizations

Cannabis Legalization and Opioid Use Disorder in Veterans Health Administration Patients

- June 2025; JAMA Health Forum
- MCL and RCL enactment was associated with **greater OUD prevalence** in VHA patients over time, with the greatest increases among middle-aged and older patients and those with **chronic pain**
- Findings **did not support** state cannabis **legalization** as a means of **reducing the burden of OUD** during the ongoing opioid epidemic

Cannabis Use in Opioid Maintenance Therapy: Prevalence, Clinical Correlates and Reasons for Use

- August 2025; Brain Sciences
- **Concomitant cannabis use is common** in patients on opioid maintenance therapy
- Cannabis use was reported by 41% of patients, 73% met criteria for **cannabis dependence**, 30% of the full sample
- Cannabis dependence was significantly more common in patients receiving **buprenorphine** than methadone

Drug interaction Buprenorphine and THC

✓ Major (1) ✓ Moderate (0) ✓ Minor (0) ✓ Food/lifestyle (2) ✓ Therapeutic duplication (0)

Interactions between your drugs

Major buprenorphine $\rightleftharpoons$ droNABinol
Applies to: buprenorphine, dronabinol

Using **buprenorphine** together with other medications that also cause central nervous system **depression** can lead to serious side effects such as **respiratory distress, coma, and even death**. Talk to your doctor if you have any questions or concerns. Your doctor may be able to prescribe alternatives that do not interact, or you may need a dose adjustment or more frequent monitoring to safely use both medications. Do not drink alcohol or self-medicate with these medications without your doctor's approval, and do not exceed the doses or frequency and duration of use prescribed by your doctor. Also, you should avoid driving or operating hazardous machinery until you know how these medications affect you. It is important to tell your doctor about all other medications you use, including **vitamins** and herbs. Do not stop using any medications without first talking to your doctor.

https://www.drugs.com/interactions-check.php?drug_list=438-0,943-0

Effects of Cannabis Use for Medical Symptoms on Cannabis Use Disorder Symptoms: A 24-Month Follow-up Study

- July 2025; Am J Prevent Med
- Participants seeking medical cannabis cards for pain, insomnia, anxiety, or depressive symptoms
- 8.3% had ongoing CUD
- 6.0% developed new-onset CUD at 24 months.
- Among those who met criteria for CUD at a previous timepoint, CUD persisted in 58.3%.
- CUD severity increased with prolonged use.

Cannabis use frequency is associated with emotion dysregulation among persons receiving long-term opioid therapy for chronic pain

- October 2025; J. Drug and Alcohol Depend.
- **Impaired emotion regulation** is associated with more frequent cannabis use
- **Pain severity** was not significantly associated with frequency of cannabis use
- Cannabis use might primarily **modulate affective processes** in this population

Cannabis and Opioids

- There is **no evidence** supporting the use of **dispensary** cannabis for chronic non-cancer pain
- There is **no evidence** for substituting opioids with **dispensary** cannabis
- There is **no package insert** for **dispensary** cannabis
- Cannabis users are **more likely** to develop opioid use disorder or misuse their opioids and have higher depression and anxiety scores, and other negative psychiatric effects
- States with medical marijuana programs typically have **higher opioid overdose deaths** than non-medical marijuana states
- Any real or perceived benefit **outweighed** by current evidence



Brain

- Addiction
- Cognition
- Depression
- PTSD
- Suicide
- Psychosis

Addiction

- National Institute of Drug Abuse (NIDA); National Institute of Health
- “Chronic, heavy—every day or almost—use of cannabis products with THC is associated with developing cannabis use disorder, a type of substance use disorder. Studies have estimated that **22% to 30%** of people who use cannabis have the disorder”

What is the prevalence and risk of cannabis use disorders among people who use cannabis? a systematic review and meta-analysis

- October 2020; Addictive Behaviors
- Estimates from cohort studies, showed that the risk of developing CUD **increased to 33%** (22–44%) among young people who engaged in regular (**weekly or daily**) use of cannabis

Association of State Cannabis Legalization With Cannabis Use Disorder and Cannabis Poisoning

- March 2025; JAMA Psychiatry
- **MCLs** were associated with significant increases in **CUD** and **cannabis poisoning**
- **RCLs** were associated with a significant increase in **cannabis poisoning**
- Communities with increased access to cannabis may experience **increased health care use and costs** due to increases in cannabis poisoning and CUD

Cognition and IQ

- August 2012; Psychological and Cognitive Sciences
- Persistent cannabis use was associated with **neuropsychological decline** broadly across domains of functioning, even after controlling for years of education (**drop in 5-6 IQ points**)
- Cessation of cannabis use **did not fully restore** neuropsychological functioning among adolescent-onset cannabis users

Acute effects of high-potency cannabis flower and cannabis concentrates on everyday life memory and decision making

- June 2021; Scientific Reports
- High-potency cannabis flower with CBD impaired free recall
- High-potency flower without CBD and concentrates had detrimental effects on source memory
- All three products increased susceptibility to false memories

Cognition

- August 2025; Psychopharmacology
- People who choose to use relatively low doses of cannabis **edibles** may experience **decrements in cognitive function** while experiencing intoxication.

Effects of Cannabis Use for Medical Symptoms on Cannabis Use Disorder Symptoms

- July 2025; Amer J Prev Med
- CUD persists in a subset of individuals 2 years after initiating cannabis use for medical symptoms

Table 1. Participant Characteristics

Measure	Total
Sample size	84
Randomization group; <i>n</i> (%)	
MMC ^a	49 (58.3%)
WLC ^b	35 (41.7%)
Age, years; M (SD)	38.3 (14.5)
Female; <i>n</i> (%)	55 (65.4%)
Race; <i>n</i> (%)	
Asian	4 (4.8%)
Black or African American	4 (4.8%)
White	70 (83.3%)
Multiracial	3 (3.6%)
Hispanic; <i>n</i> (%)	5 (6.0%)
Education, years; M (SD)	16.8 (2.3)
Baseline cannabis use frequency $\geq$ weekly; <i>n</i> (%)	22 (26.2%)
Chief complaint ^c ; <i>n</i> (%)	
Insomnia	18 (21.4%)
Pain	29 (34.5%)
Depression/anxiety	37 (44.0%)

Seizure

- June 2025; Fundamental and Clinical Pharmacology
- Cannabinoids can be **pro-epileptogenic**
- 3% incidence of seizure/convulsive effects
 - 23% **medical** use
 - 75% recreational use

Cannabis use in different ethnicity/race populations and risk of ischemic stroke: A systematic review and meta-analysis

- May 2025; Journal of Ethnicity in Substance Abuse
- Statistically significant association between cannabis use and **increased risk of ischemic stroke**
- Cannabis use is associated with a **significantly elevated risk** of ischemic stroke, particularly among **young adults**

Reversible Cerebral Vasoconstriction Syndrome and Marijuana Use

- July 2025; Prim Care Companion CNS Disord
- A study published in 2018, which studied the epidemiology of RCVS, showed that **33% of the cases** were related to marijuana use
- Marijuana has a **procoagulant effect** due to its interactions with cannabinoid receptor type 1 and cannabinoid receptor type 2 on **platelet membranes**
- Marijuana-induced RCVS primarily impacts **younger males**



Cannabis Psychosis

- December 2024; British Journal of Psychiatry
- Abrupt **cannabis withdrawal** may act as a **trigger** for the **first episode** of psychosis and a **relapse** of an existing psychosis.
- Acute psychotic symptoms can emerge **after the cessation**, as well as **following the use**, of cannabis

First Use of Cannabis and Mental Health

- August 2025; BMJ Mental Health
- Initiating cannabis use for **self-medication** is associated with higher average THC consumption, and increased anxiety, depression and paranoia
- Reasons for first use of cannabis to relieve **physical discomfort**, **pain**, anxiety, depression and minor psychotic symptoms were linked to **higher paranoia scores**.

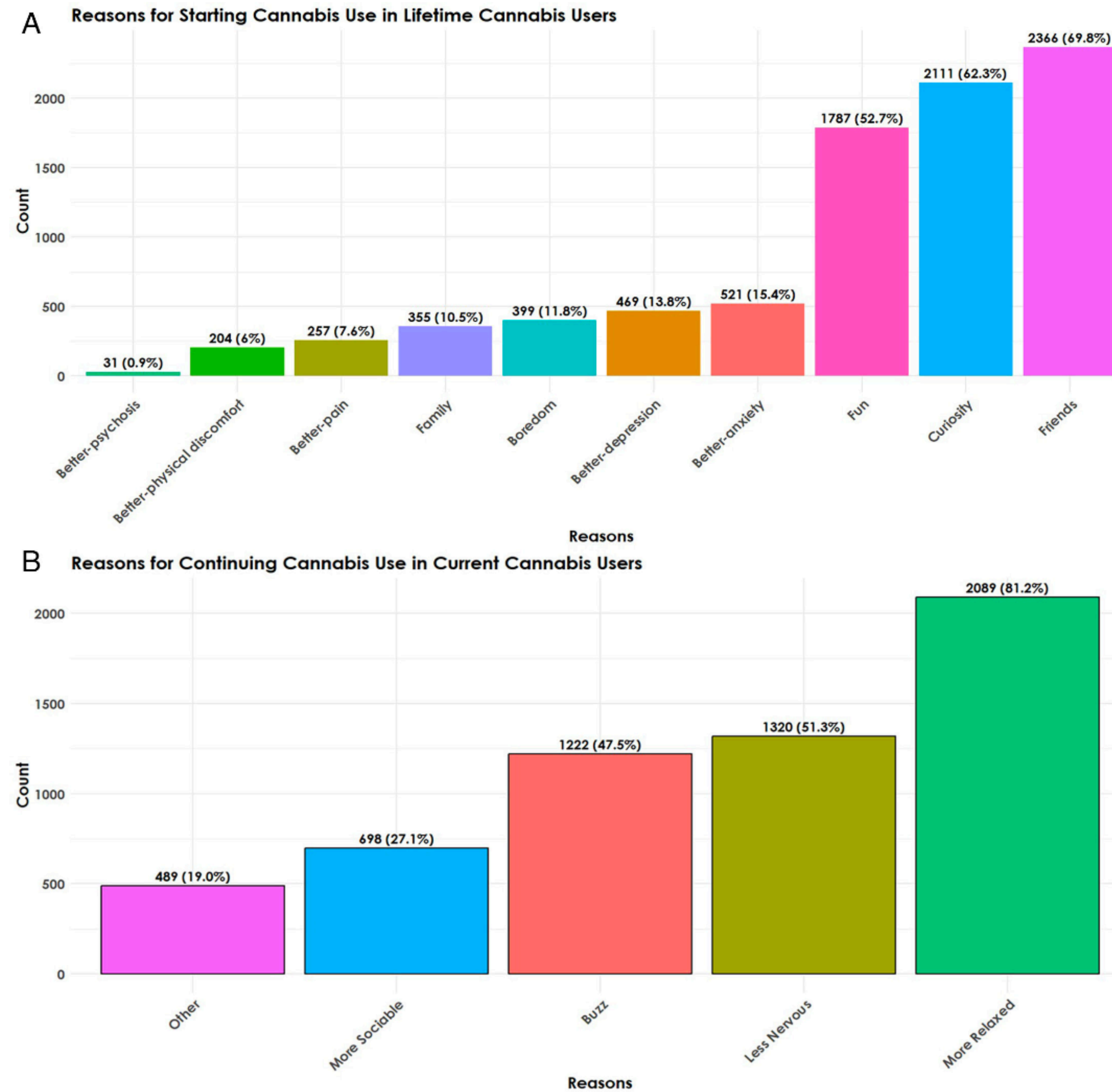


Figure 1 (A) Reasons for first using cannabis as depicted by the number of participants and percentage of sample with lifetime cannabis use. (B) Reasons for continuing to use cannabis as depicted by the number of people and percentage of sample with current cannabis use.

Behavioral and Neurobiological Effects of Cannabis Use in Adolescents

- July 2025; Amer. J. Psychiatry
- Cannabis use—particularly with high-tetrahydrocannabinol (THC) products and frequent use—can disrupt adolescent **brain development** and **behavior**
- Relevant to trajectories leading to **psychosis**, **schizophrenia**, and **cannabis use disorder**, while also elevating risks for **anxiety** and **depression**

Cannabis Psychosis

- February 2025; JAMA Open
- Changes in Incident Schizophrenia Diagnoses Associated With Cannabis Use Disorder **After** Cannabis Legalization in **Canada**
- The proportion of incident cases of **schizophrenia** associated with **CUD** almost **tripled** during a period of substantial liberalization of cannabis policy

Convergence of Cannabis and Psychosis on the Dopamine System

- April 2025; JAMA Psychiatry
- Used neuromelanin-sensitive magnetic resonance imaging (**MRI**), referred to as the neuromelanin-MRI signal, a practical, proxy measure of **dopamine function**
- Elevated dopamine function in a **critical** Substantia Nigra/Ventral Tegmental Area subregion may be **associated with psychosis risk** in people with **CUD**

High-Concentration Delta-9-Tetrahydrocannabinol Cannabis Products and Mental Health Outcomes: A Systematic Review

- August 2025; Ann Int Med
- **High-concentration THC** defined as greater than 5 mg or greater than 10% THC per serving or labeled as “high-potency concentrate,” “shatter,” or “dab.”
- High-concentration THC products are associated with **unfavorable mental health outcomes**, particularly for **psychosis** or **schizophrenia** and **CUD**

JARS CANNABIS

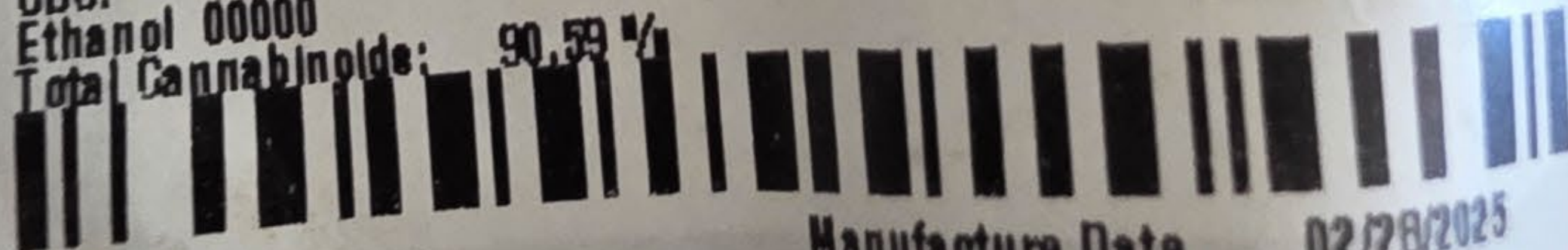
JARS Applicator 1g Strawberry Fields
0.035 oz Usable: 1.000(g) Total Package Weight: 16.20 g
Batch #: 8F2.28 (JARSDIS - 0131258Q)
Vendor: Dream Green Inc (Extraction Lab)

00000078E8QG10647381

Strain: Hybrid
THC: 86.02 %
CBD: 0.24 %
CBN: 0.29 %
CBG: 2.31 %
CBC: 1.08 %

Ethanol 00000

Total Cannabinoids: 90.59 %



268082

Manufacture Date

02/28/2025

JARS CANNABIS

JARS Applicator 1g Pina Colada

0.035 oz Usable: 1.000(g) Total Package Weight: 16.20 g

Batch #: PC2.28 (JARSDIS - 0131258Q)

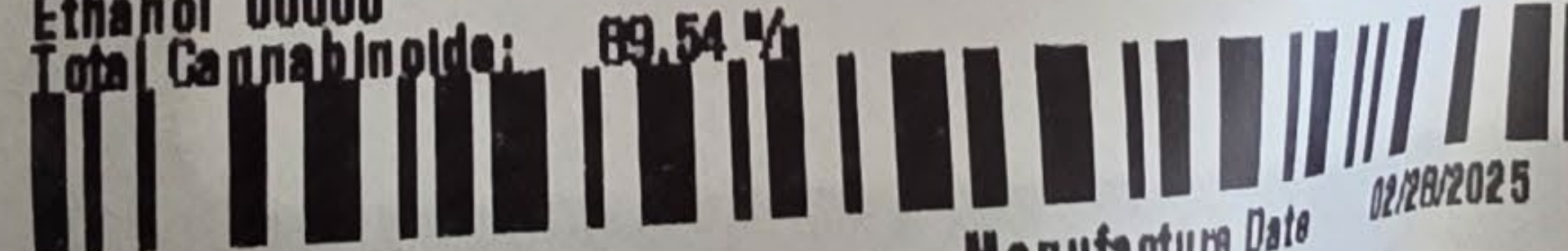
Vendor: Dream Green Inc (Extraction Lab)

00000078E8QG10647381

Strain: Hybrid
THC: 85.07 %
CBD: 0.23 %
CBN: 0.30 %
CBG: 2.27 %
CBC: 1.09 %

Ethanol 00000

Total Cannabinoids: 89.54 %



269099

Manufacture Date 02/28/2025

DON'T MISS A DROP.

DON'T MISS A DROP.

Stay in the loop with JARS on social media
AZ 86314
0808
811

The neurobiology of cannabis use disorder and psychosis

- August 2025; American College of Neuropsychopharmacology
- Development of cannabis use disorder (CUD) may potentiate psychosis risk.
- Recent large-scale studies have shown a four-fold increase over the last two decades in the proportion of schizophrenia that can be attributable to CUD in Denmark
- near tripling of CUD-associated psychosis cases in Ontario

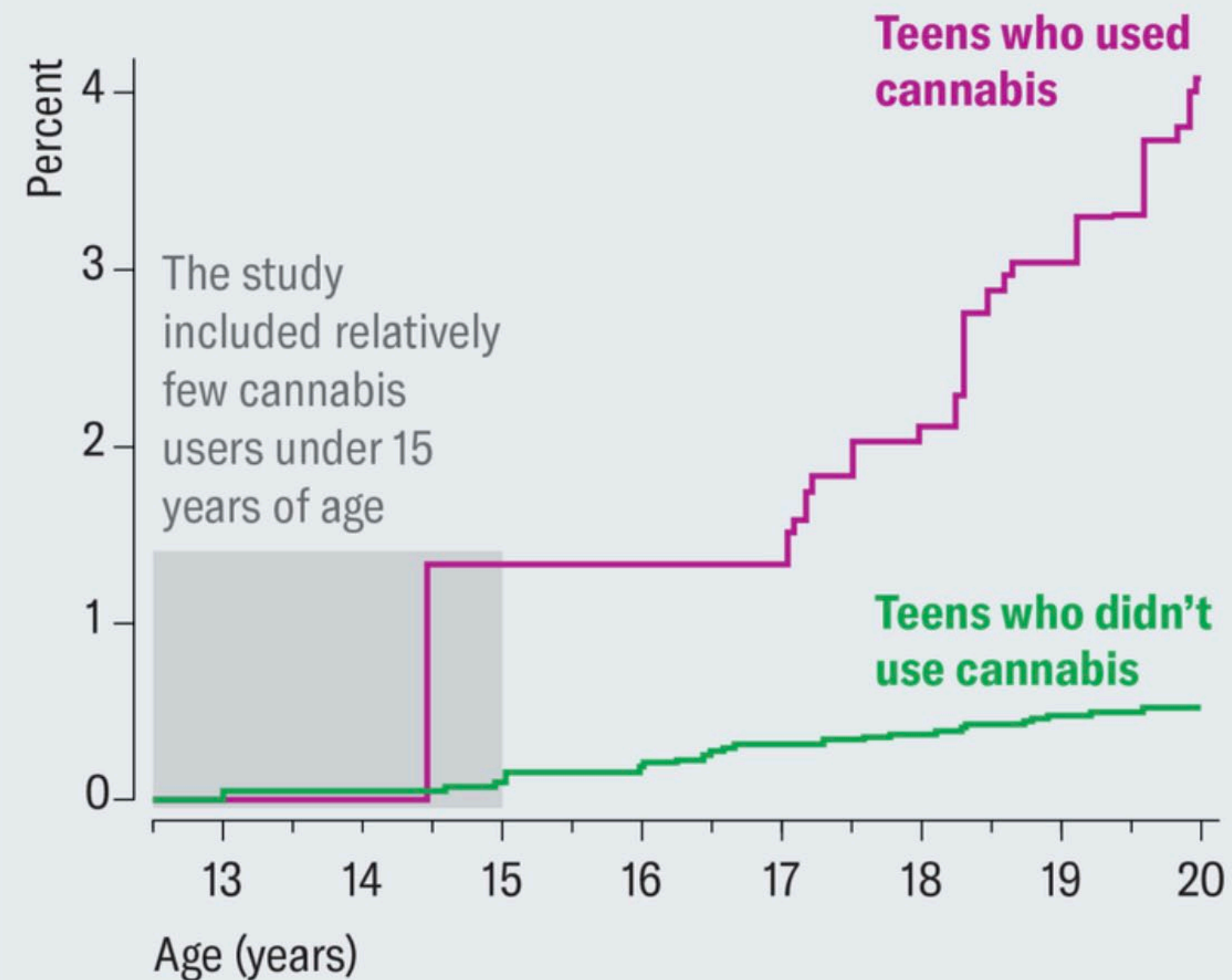
Cannabis psychosis

- August 2025; Canadian Medical Association
- The risk of cannabis-induced psychosis is elevated among those using high-potency THC (a product with ≥ 10% THC) and those who use cannabis frequently, are younger, or are male
- History of a mental disorder (e.g., bipolar disorder, depression, anxiety) increases the risk of psychosis
- People with an emergency department visit for cannabis use or cannabis-induced psychosis were at a 14.3-fold and 241.6-fold higher risk of developing a schizophrenia-spectrum disorder within 3 years than the general population, respectively

<https://pubmed.ncbi.nlm.nih.gov/39903464/>

Cannabis Use and Psychotic Disorders among Teens

Researchers tracked the onset of chronic psychotic disorders among more than 11,000 teenagers in Canada over several years. By the time the cohort reached age 20, the cumulative incidence of psychotic disorders was about 4 percent in those who had used cannabis in the past year compared with less than 1 percent among nonusers.



André J. McDonald, modified and restyled by Ripley Cleghorn; Source: [“Age-Dependent Association of Cannabis Use with Risk of Psychotic Disorder,” in *Psychological Medicine*, Vol. 54, No. 11; August 2024](#)

Cannabis Use Among Individuals With Psychosis After State-Level Commercial Cannabis Legalization

- October 2025; JAMA Psychiatry
- 30-day cannabis use **increased by 9.53 percentage points** after legalization among individuals with psychosis
- Individuals with psychosis reported a **large increase** in current cannabis use **following legalization and commercialization** of cannabis in their state

Muricide

- 1978; Even a **single dose of THC** could produce in rats **an attack response** and **muricide** ([Physiology & Behavior, Vol. 21, pp. 581-585. Pergamon Press and Brain Research Publ., 1978. Printed in the U.S.A.](#))
- 2002; Group-housed rats could be **induced to aggression** (fighting between cage-mates and muricide) by the chronic administration of **daily** doses of THC
- Chronic THC induced **mouse killing behavior** in previously ‘non-killer’ rats

American Sniper, Chris Kyle

- Eddie Ray Routh was not insane when he killed "American Sniper" Chris Kyle and his friend Chad Littlefield; he was suffering from cannabis-induced psychosis



Bryn Spejcher, Chad O'Melia

- Bryn Spejcher, who **killed** during **cannabis psychosis**, appeals manslaughter conviction



<https://www.vcstar.com/story/news/local/2025/01/24/bryn-spejcher-who-killed-during-cannabis-psychosis-appeals-verdict/77909963007/>

Blair/Ashton Ness, Dallas

- Lewisville man charged in **toddler's stabbing**: 'I know everyone's mad, I'm mad. I killed my son'
- **Stab wounds** were found **“all over” the boy’s head and body**, police records said.
- A large blood stain was found inside the apartment, with a blood-stained knife and **skull fragments** lying by the bedroom door



<https://www.wfaa.com/article/news/lewisville-man-charged-in-toddlers-stabbing-i-know-everyones-mad-im-mad-i-killed-my-son/287-586392900>

Minneapolis, MN Shooter

- "Gender and weed fucked up my head," Westman claimed. "I wish I never tried experimenting with either. Don't let your kids smoke weed or change gender until they are like seventeen."
- Trans are more likely to use marijuana and have mental health issues
- Worked at a marijuana dispensary where job required he test/use product
- Dispensary workers tend to use before, during, and after work

<https://www.ibtimes.sg/robin-westman-minneapolis-shooter-blamed-his-mom-massacre-because-she-warned-he-would-regret-81415>



Vulnerable Patient Populations

- In Utero
- Pediatric
- Geriatric

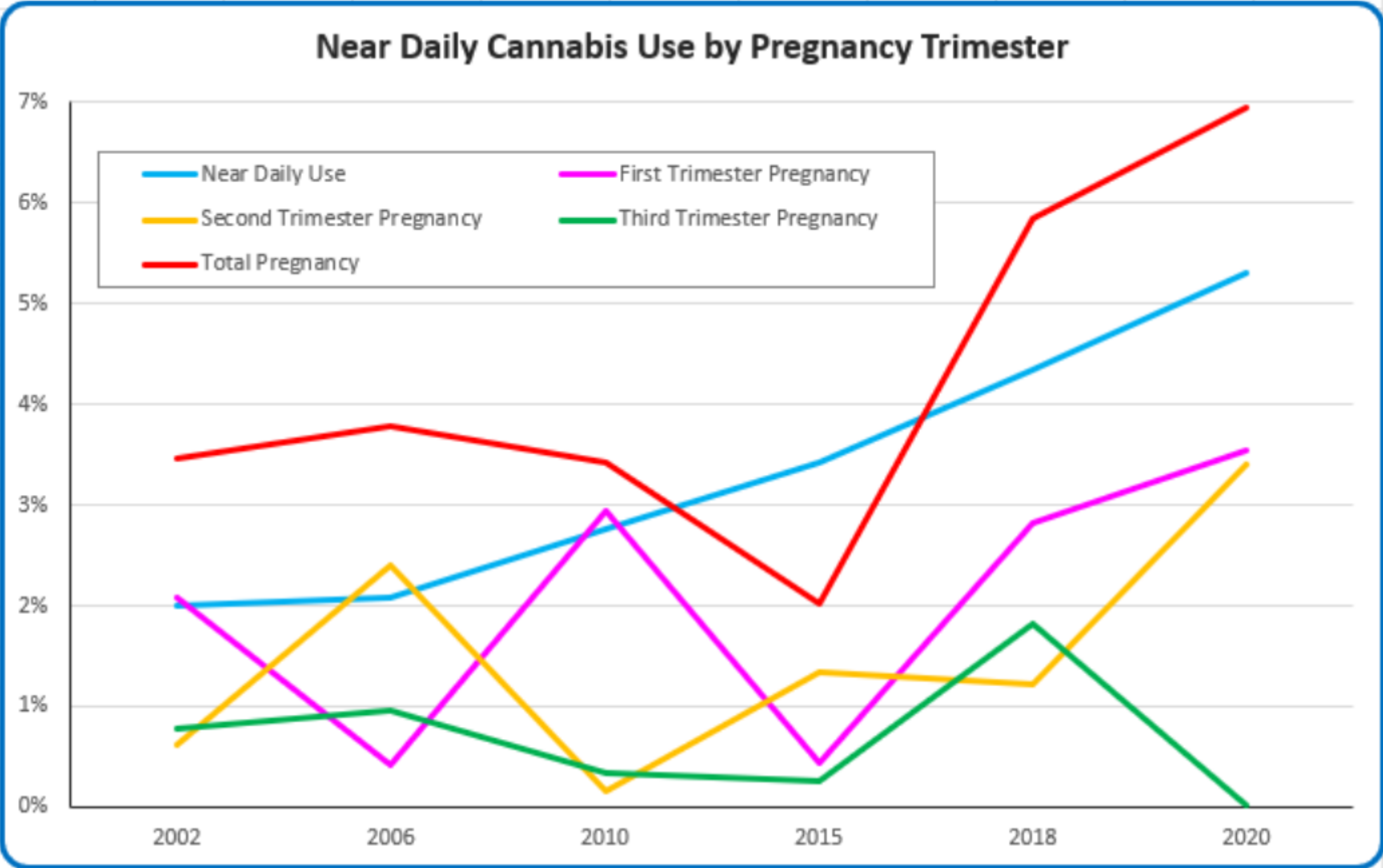
In Utero



Year	Near Daily Use	First Trimester Pregnancy	Second Trimester Pregnancy	Third Trimester Pregnancy	Total Pregnancy
2002	2.00%	2.09%	0.61%	0.77%	3.47%
2006	2.08%	0.41%	2.41%	0.96%	3.78%
2010	2.77%	2.94%	0.16%	0.33%	3.43%
2015	3.43%	0.43%	1.33%	0.26%	2.02%
2018	4.34%	2.82%	1.22%	1.81%	5.85%
2020	5.31%	3.54%	3.40%	0.01%	6.95%

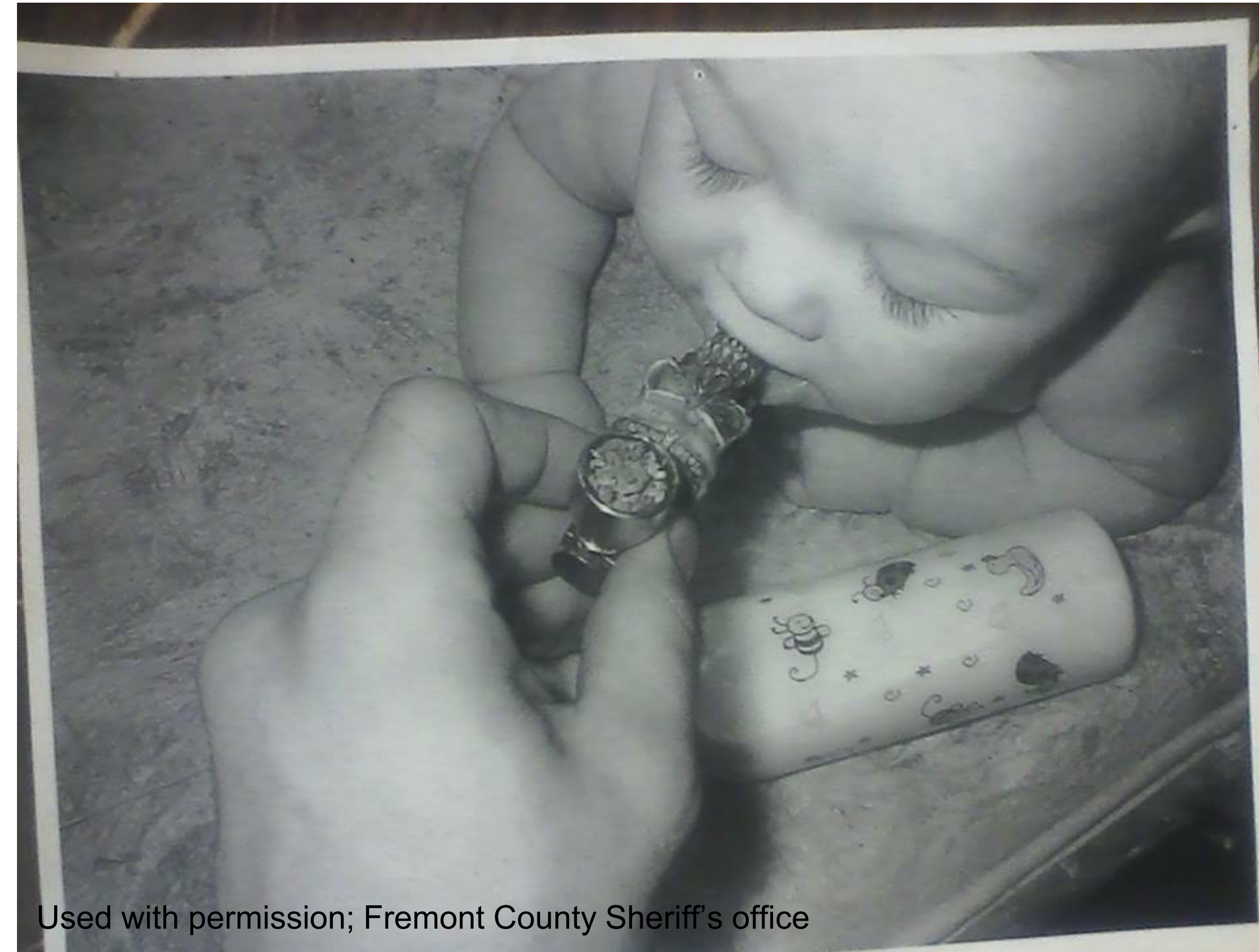
Year	Near Daily Use	First Trimester Pregnancy	Second Trimester Pregnancy	Third Trimester Pregnancy	Total Pregnancy
2002	2.00%	2.09%	0.61%	0.77%	3.47%
2006	2.08%	0.41%	2.41%	0.96%	3.78%
2010	2.77%	2.94%	0.16%	0.33%	3.43%
2015	3.43%	0.43%	1.33%	0.26%	2.02%
2018	4.34%	2.82%	1.22%	1.81%	5.85%
2020	5.31%	3.54%	3.40%	0.01%	6.95%

Period	Interval	Rise
Period 1	2002-2010	0.99
Period 2	2010-2020	2.03



Cannabis Use Among Pregnant and Nonpregnant Women of Childbearing Age

- October 2025; Am J Prevent Med
- Cannabis-use prevalence was 12.6% among non-pregnant and 6.8% among pregnant women
- **First-trimester use** was highest at 10.1%, peaking at 14.2% in 2022.
- **Smoking** was the predominant method
- Cannabis use among non-pregnant women increased between 2021-2023, reflecting increasingly normalized use of cannabis



Used with permission; Fremont County Sheriff's office



Pregnancy/In Utero Exposure

- More than 70% of surveyed dispensaries in Colorado recommended cannabis use during first trimester pregnancy (<https://pubmed.ncbi.nlm.nih.gov/29742676/>)
- THC may persist in breast milk for up to 6 weeks after cessation (<https://jamanetwork.com/journals/jamapediatrics/article-abstract/2776975>)
- Prenatal marijuana exposure impacts executive functioning into young adulthood: An fMRI study (<https://pubmed.ncbi.nlm.nih.gov/27263090/>)

In Utero Exposures, Connecticut September 2022

- **4,700 notifications over 28 months**
 - **79% included marijuana exposure**
 - **21% included opioid exposure**
 - **< 3% included alcohol exposure**

Associations Between Prenatal Cannabis Exposure and Childhood Outcomes; Results From the ABCD Study

September 2020

- N=11,875, ages 9-11
- Cannabis exposure only, before and after maternal knowledge of pregnancy, were associated with greater offspring psychopathology characteristics
- Exposure after maternal knowledge of pregnancy remained associated with greater psychotic-like experiences, attention, thought, and social problems
- Prenatal cannabis exposure and its correlated factors are associated with greater risk for psychopathology during middle childhood.

<https://pubmed.ncbi.nlm.nih.gov/32965490/>

Prenatal cannabis exposure associated with mental disorders in children that persist into early adolescence

- September 2022
- National Institute of Health, NIDA
- Associated with attention, social, and behavioral problems which persist into early adolescence
- The ABCD study tracked 12,000 youths

<https://nida.nih.gov/news-events/news-releases/2022/09/prenatal-cannabis-exposure-associated-with-mental-disorders-in-children-that-persist-into-early-adolescence>

Birth Outcomes of Neonates Exposed to Marijuana in Utero

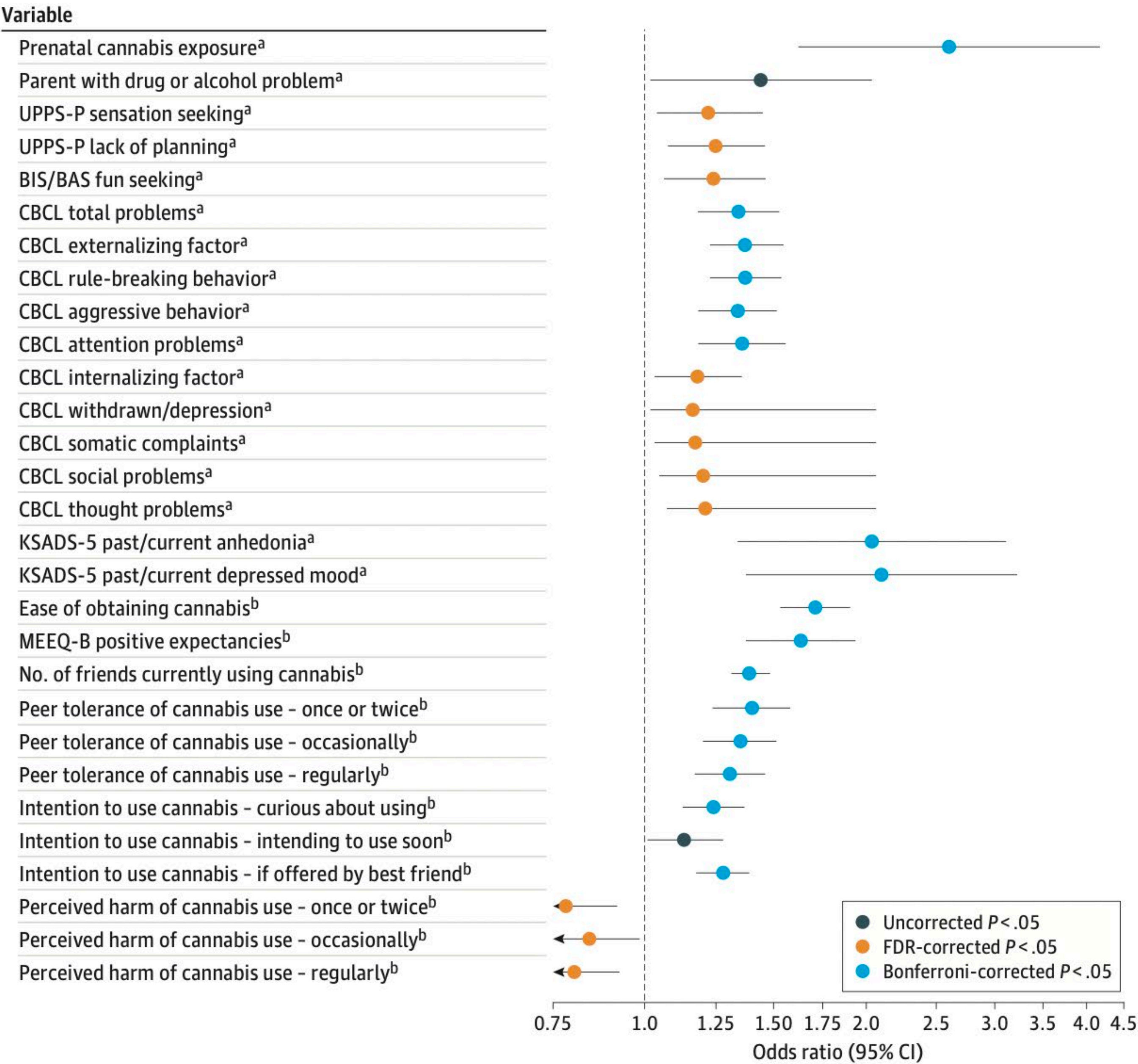
A Systematic Review and Meta-analysis

- January 2022; JAMA
- There were **significant increases** in 7 adverse neonatal outcomes among women who were exposed to marijuana during pregnancy
- These included increased risk of birth weight less than 2500 g, small for gestational age, preterm delivery, and NICU admission, along with decreased mean birth weight, Apgar score at 1 minute, and infant head circumference

Characteristics Associated With Cannabis Use Initiation by Late Childhood and Early Adolescence in the Adolescent Brain Cognitive Development (ABCD) Study

- June 2023
- Prenatal cannabis exposure was associated with the largest risk for cannabis use initiation
- This association remained when additionally controlling for alcohol and tobacco use initiation, family or parent alcohol or drug problems, and prenatal alcohol and tobacco exposure

Figure. Variables Associated With Cannabis Initiation as Children Enter Early Adolescence



Prenatal cannabinoid exposure: why expecting individuals should take a pregnancy pause from using cannabinoid products

- October 2023; Frontiers in Pediatrics
- Clinical studies raise compelling evidence for short term memory deficits, impulse control issues, and attention deficiencies following prenatal cannabinoid exposure
- Epidemiological studies have revealed multiple concerning associations, including higher congenital anomalies

Cannabis Use and Perinatal Health Research

- August 2023; JAMA
- Recent data showing that paternal cannabis use preconception may also adversely affect reproductive health and offspring outcomes, including lower infant birth weight, higher risk of spontaneous abortion, and sudden infant death syndrome
- Δ^9 THC–induced changes in placental and fetal DNA methylation were in genes involved in neurodevelopment and autism spectrum disorder

https://jamanetwork.com/journals/jama/fullarticle/2808720?guestAccessKey=ba2843a9-18d7-429a-99d0-31d4a562b474&utm_source=silverchair&utm_medium=email&utm_campaign=article_alert-jama&utm_content=olf&utm_term=081723&adv=004814900512

Figure. Effect of Paternal or Maternal Cannabis Use on Placental, Fetal, and Offspring Outcomes

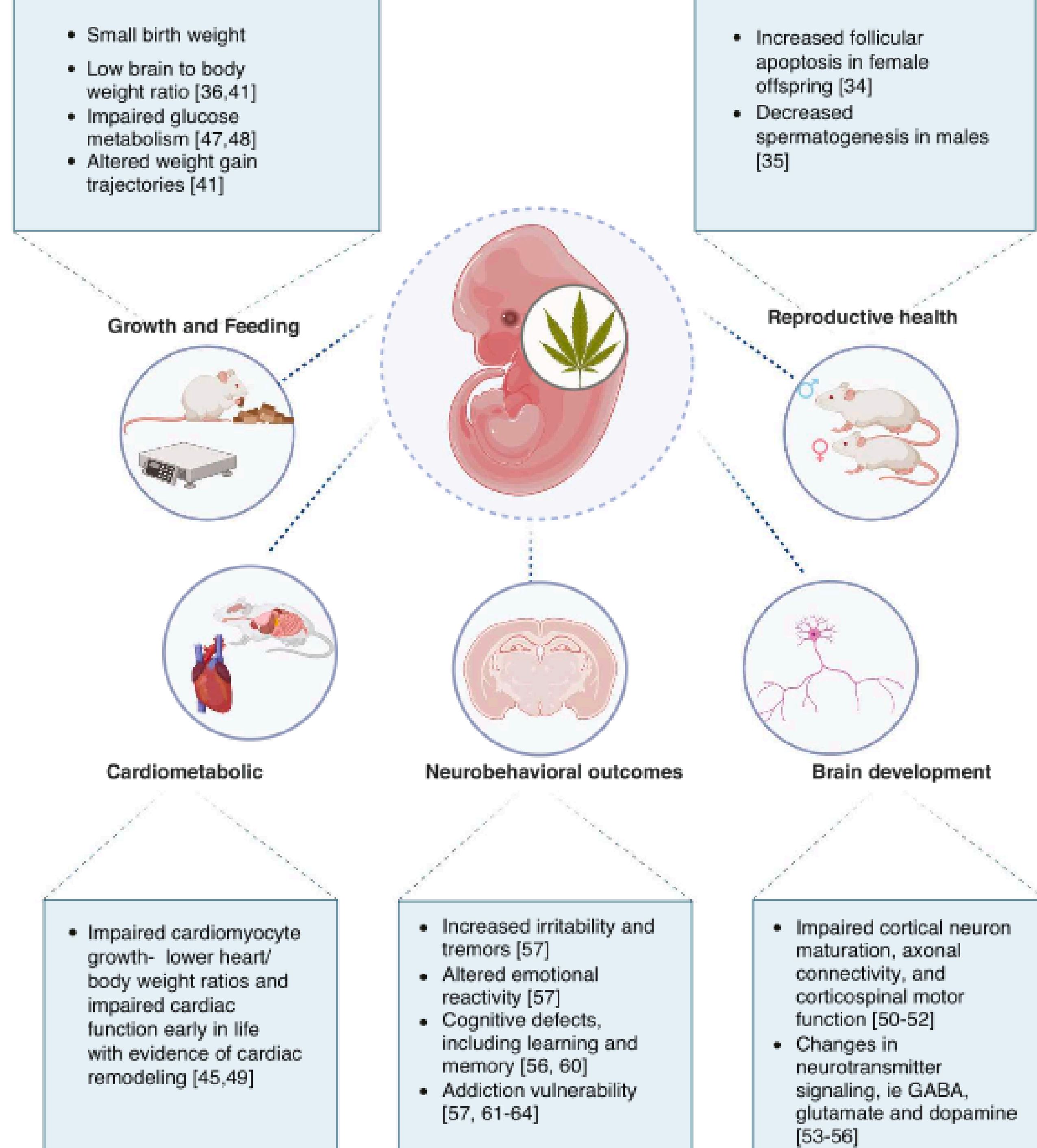
Effects of cannabis use on: 			
	Placenta	Fetus	Offspring
Paternal cannabis use		• Spontaneous abortion • Low birth weight	• Small for gestational age • Sudden infant death syndrome
Maternal cannabis use	• Altered placental epigenome and transcriptome	• Preterm birth • Low birth weight • Altered fetal epigenome	• Small for gestational age • NICU admission • Autism spectrum disorder • Attention-deficit/hyperactivity disorder • Psychoticlike experiences

Cannabis smoking is associated with persistent epigenome-wide disruptions despite smoking cessation

- April 2025; BMC Pulmonary Medicine
- In older adults, cannabis smoking is linked with epigenome-wide disruptions, many of which persist despite cannabis smoking cessation
- Corresponded up to 12,115 differentially methylated genes
- There may be long-lasting epigenetic injury with cannabis smoking

The changing landscape of cannabis use: impact on maternal health and neonatal outcomes

- June 2025; Springer Nature; Pediatric Research
- Prenatal cannabis exposure disrupts maternal metabolic regulation, placental function, and fetal development, leading to adverse short- and long-term outcomes
- Even **early or brief cannabis exposure** during pregnancy is associated with fetal growth restriction, **altered** neurodevelopment trajectories, and **increased risk** for obesity, diabetes, and cardiovascular disease.



Prenatal cannabis use and the risk of attention deficit hyperactivity disorder and autism spectrum disorder in offspring

- March 2024; Journal of Psychiatric Research
- Fourteen primary studies, consisting of ten on ADHD and four on ASD, with a total of 203,783 participants, were included in this study
- Meta-analysis underscores an increased risk of ADHD symptoms and/or disorder and ASD associated with in-utero cannabis exposure in offspring compared to their non-exposed counterparts

Exposure to maternal cannabis use disorder and risk of autism spectrum disorder in offspring: A data linkage cohort study

- July 2024; Psychiatry Research
- A **three-fold increased risk of ASD** in the offspring of mothers with **maternal CUD** compared to non-exposed offspring
- **Male** offspring have a **higher risk of ASD** associated with **maternal CUD** than their female counterparts.

Prenatal Cannabis Use and Neonatal Outcomes

- May 2025; JAMA Pediatrics
- 8 new studies with 1,709,998 participants were added, for a total of 51 studies synthesized (**N = 21,146,938**)
- Cannabis use in pregnancy was associated with **increased** odds of **LBW, PTB, and SGA**
- Associated with greater odds of **perinatal mortality**

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2833505?guestAccessKey=86f8821c-65b9-47cb-8202-e2c35f0180fc>

Cannabis impacts female fertility as evidenced by an in vitro investigation and a case-control study

- September 2025; Nature Communications
- THC-positive patients exhibit **significantly lower embryo euploid rates** than their matched control (normal embryo with 46 chromosomes)
- THC exposure **alters expression of key genes** implicated in extracellular matrix remodeling, inflammation, and chromosome segregation
- THC induces oocyte **chromosome segregation errors** and increases **abnormal spindle morphology**

Cannabis Use May Hinder Female Fertility

- September 2025; JAMA
- Tetrahydrocannabinol (THC) and its metabolites can **reach the ovarian follicle**, potentially altering the environment where egg cells develop and mature
- Patients using THC were also more likely to have **chromosome malformations**, suggesting that cannabis may **reduce** the number of viable embryos.

Pediatric

American Academy
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™



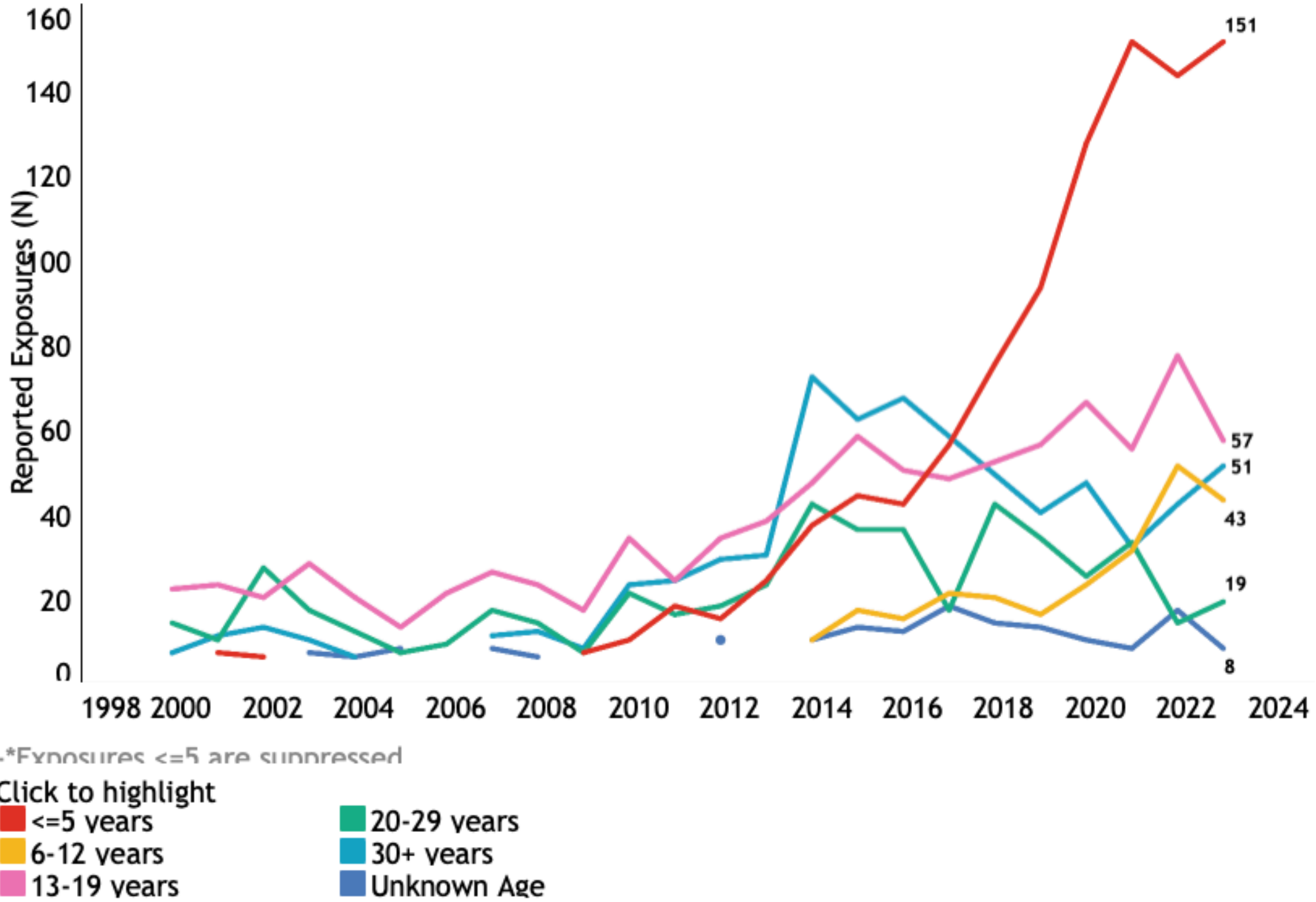
Proportion by Age (%),2023



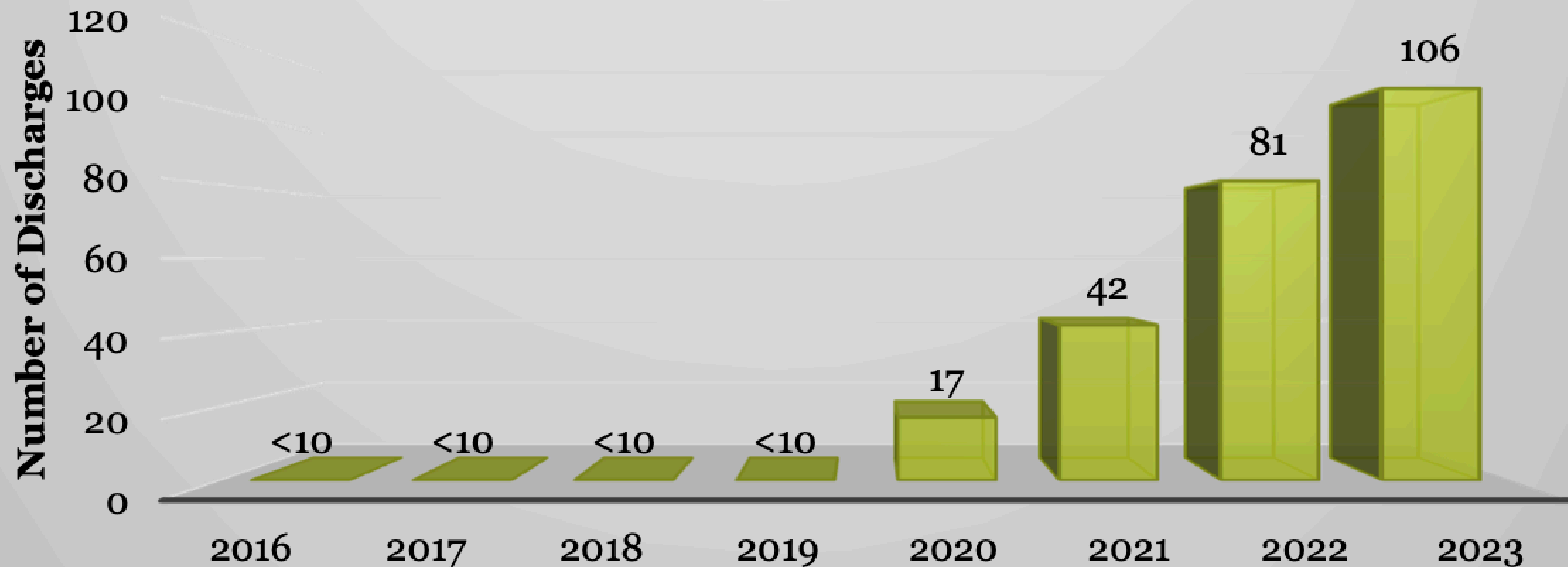
Age Trends

Since 2018, the highest proportion of marijuana exposures reported were cases of children age 5 and younger. This age group has accounted for the highest proportion of reported marijuana exposure cases since 2018. Cases in this age group continue to increase from about one third (29.8%) of reports in 2018 to nearly one half (45.9%) in 2023. The second highest proportion of reported exposures has been among cases age 13-19 years

Annual Frequency Reported of Marijuana Exposures by Age, Colorado 2000 to 2023



Number of Nonfatal Cannabis Poisoning* Inpatient Discharges (Hospitalizations), Ages 1-4 Years Old

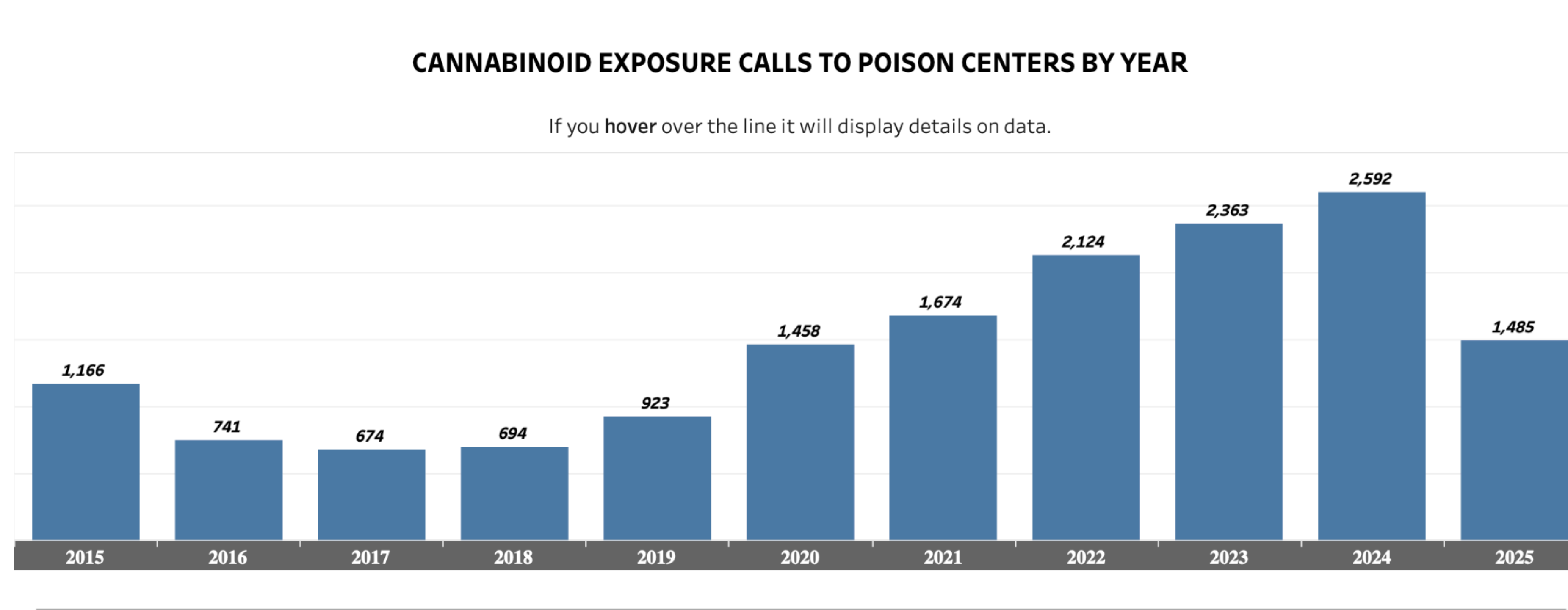


*Discharges with at least one discharge diagnosis of T40.7 with a 6th character in (1, 2, 3, 4) and a 7th character in (A, blank)

SOURCE: Oklahoma State Department of Health (OSDH) Center for Health Statistics, Oklahoma Hospital Discharge Data; Data compiled by OSDH Injury Prevention Service

[https://www.texomahidta.org/files/DDF/Texoma HIDTA Oklahoma Marijuana Report 2025.pdf](https://www.texomahidta.org/files/DDF/Texoma%20HIDTA%20Oklahoma%20Marijuana%20Report%202025.pdf)

THC Poisonings in Texas Have Tripled Since Hemp Legalization



marijuana/THC poison-control calls climbing from 923 in 2019 to 2,592 in 2024
Indicating a **300% increase in 5 years**

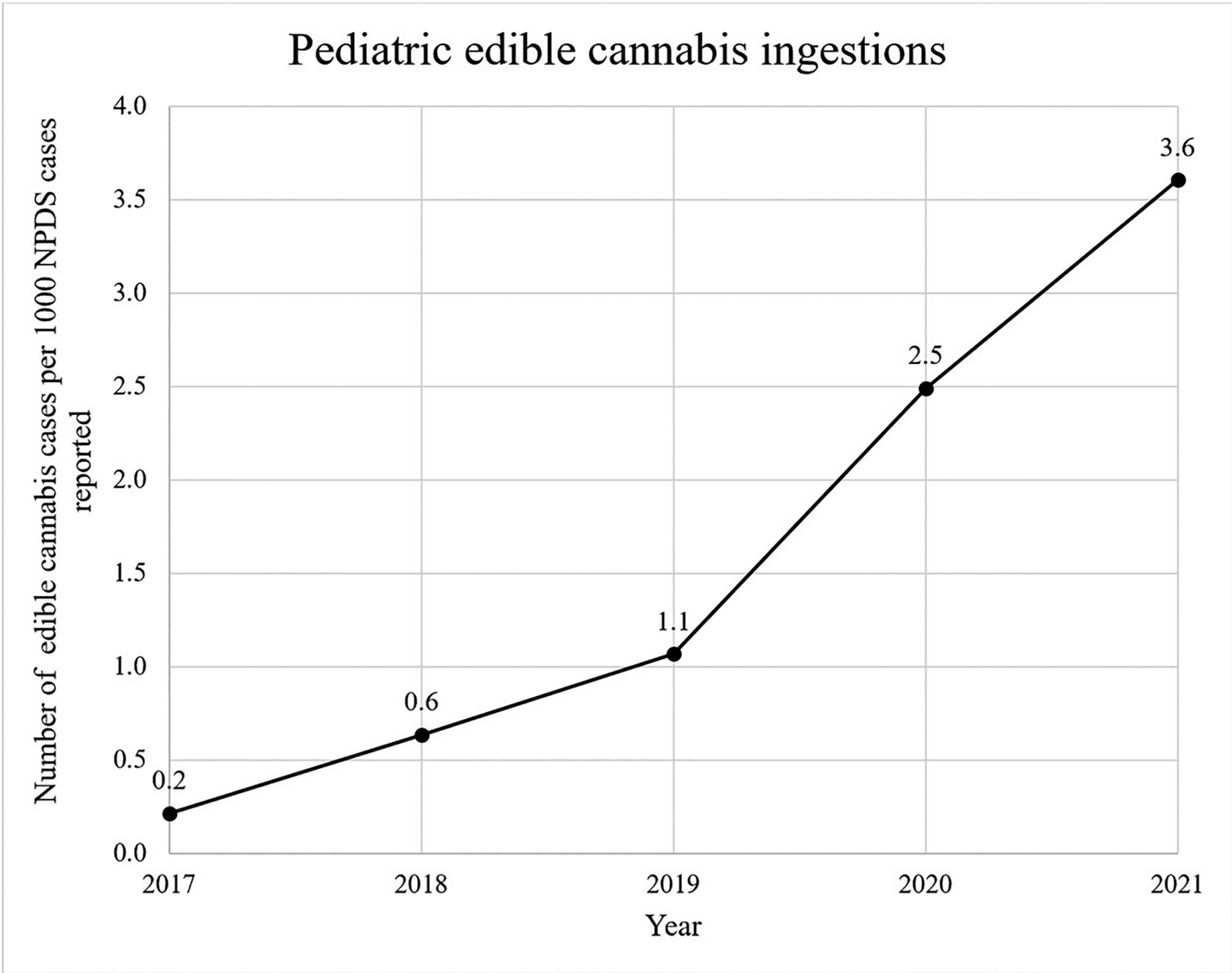
calls involving children five and under rose **495%** from 2017 to 2022
<https://healthdata.dshs.texas.gov/dashboard/drugs-and-alcohol/poison-center-calls/Cannabinoid-related-poison-center-calls>

Pediatric Edible Cannabis Exposures and Acute Toxicity: 2017–2021

- January 2023; American Academy of Pediatrics
 - In 2017, there were 207 reported cases, and in 2021 there were 3054 cases, an increase of 1,375.0%.
 - Seventy percent of cases followed to a known outcome were reported to have central nervous system depression
 - 22.7% of patients were admitted to the hospital

<https://publications.aap.org/pediatrics/article/doi/10.1542/peds.2022-057761/190427/Pediatric-Edible-Cannabis-Exposures-and-Acute?autologincheck=redirected>

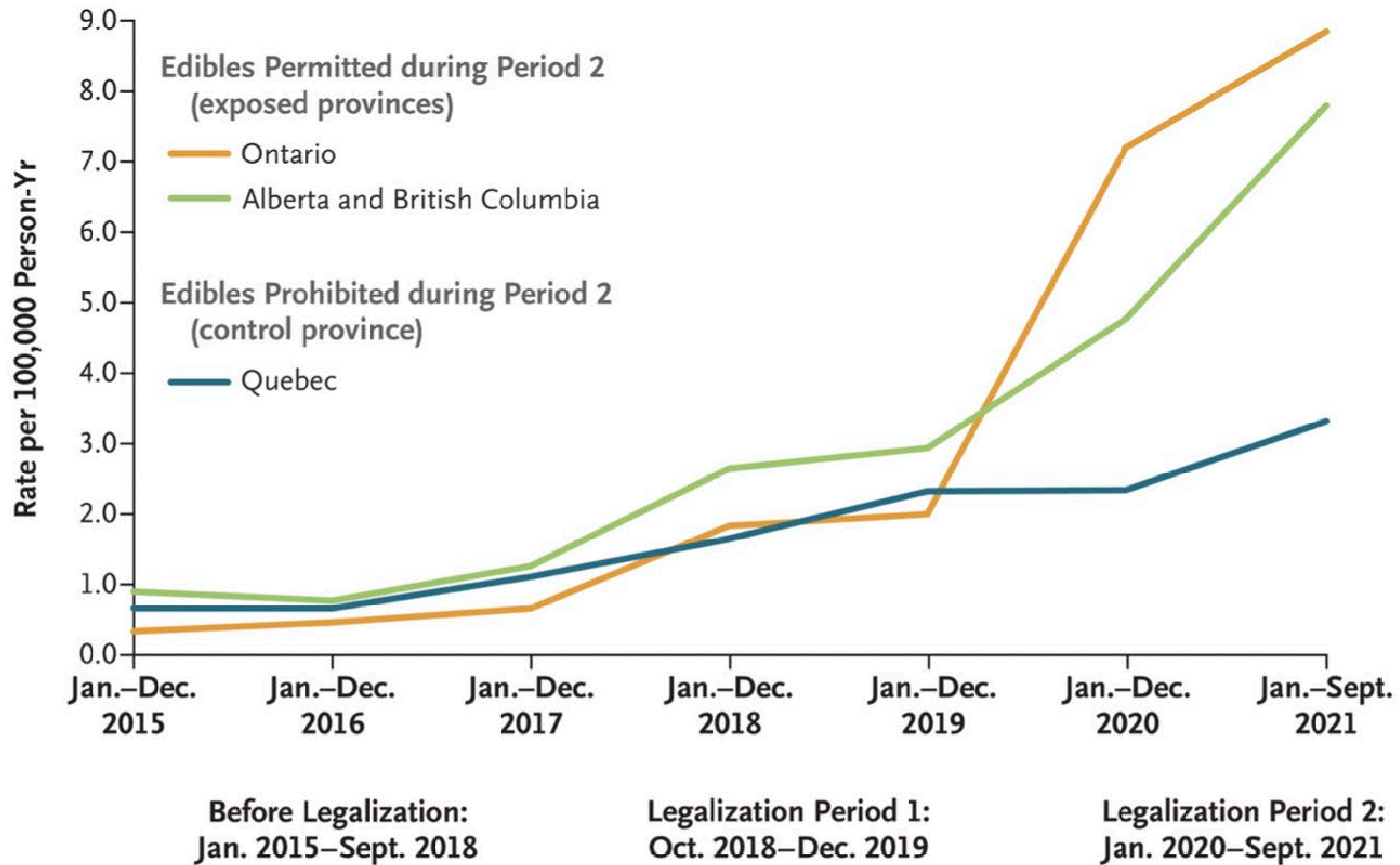
Pediatrics. Published online January 03, 2023. doi:10.1542/peds.2022-057761



Pediatric edible cannabis product ingestions per 1000 pediatric calls to the National Poison Data System by year.

Recent Trends in Marijuana-Related Hospital Encounters in Young Children

- May 2022; Academic Pediatrics
 - Inpatient, emergency department and observation encounters for children <6 years with marijuana exposures unique on the patient-year level at 52 children's hospitals in the Pediatric Health Information System database from 01/01/2004 to 12/31/2018
 - There was a 13.3-fold increase in exposures in 2018 compared to 2004
 - Fifty percent were inpatient (n = 645) and 15% required intensive care with 4% requiring mechanical ventilation



Trends in Substance-Related Visits Among Youth to US Children's Hospitals, 2016–2021: An Analysis of the Pediatric Health Information System Database

- March 2024; Journal of Adolescent Health
- 106,793 substance-related visits involving 84,632 youth (2016-21)
- All substances except sedatives experienced an increase in growth in visits
- **Cannabis** accounted for the **largest percentage of visits** (52.2%) and experienced the **greatest percentage growth** during the study period

[https://www.jahonline.org/article/S1054-139X\(24\)00106-X/abstract](https://www.jahonline.org/article/S1054-139X(24)00106-X/abstract)

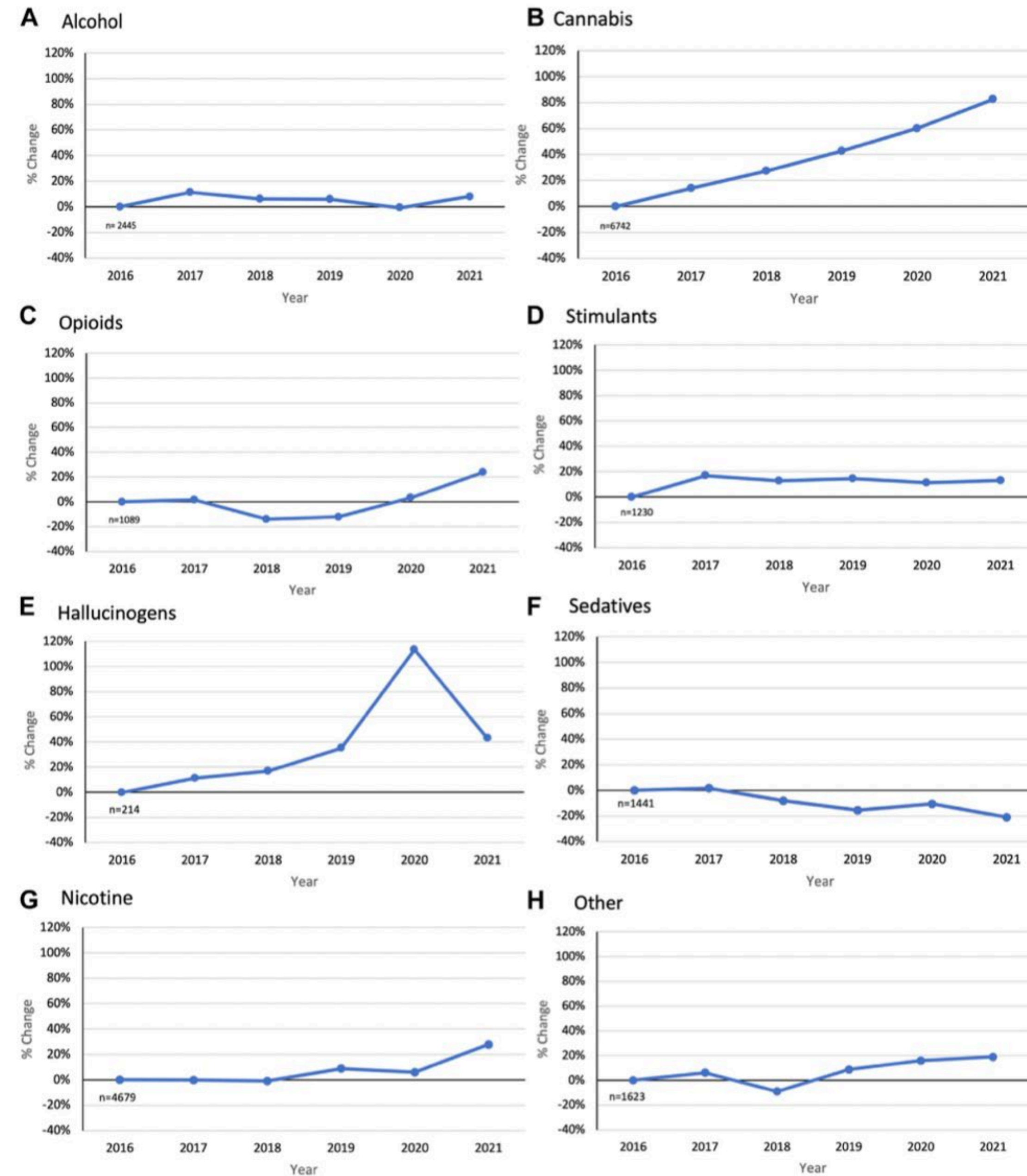
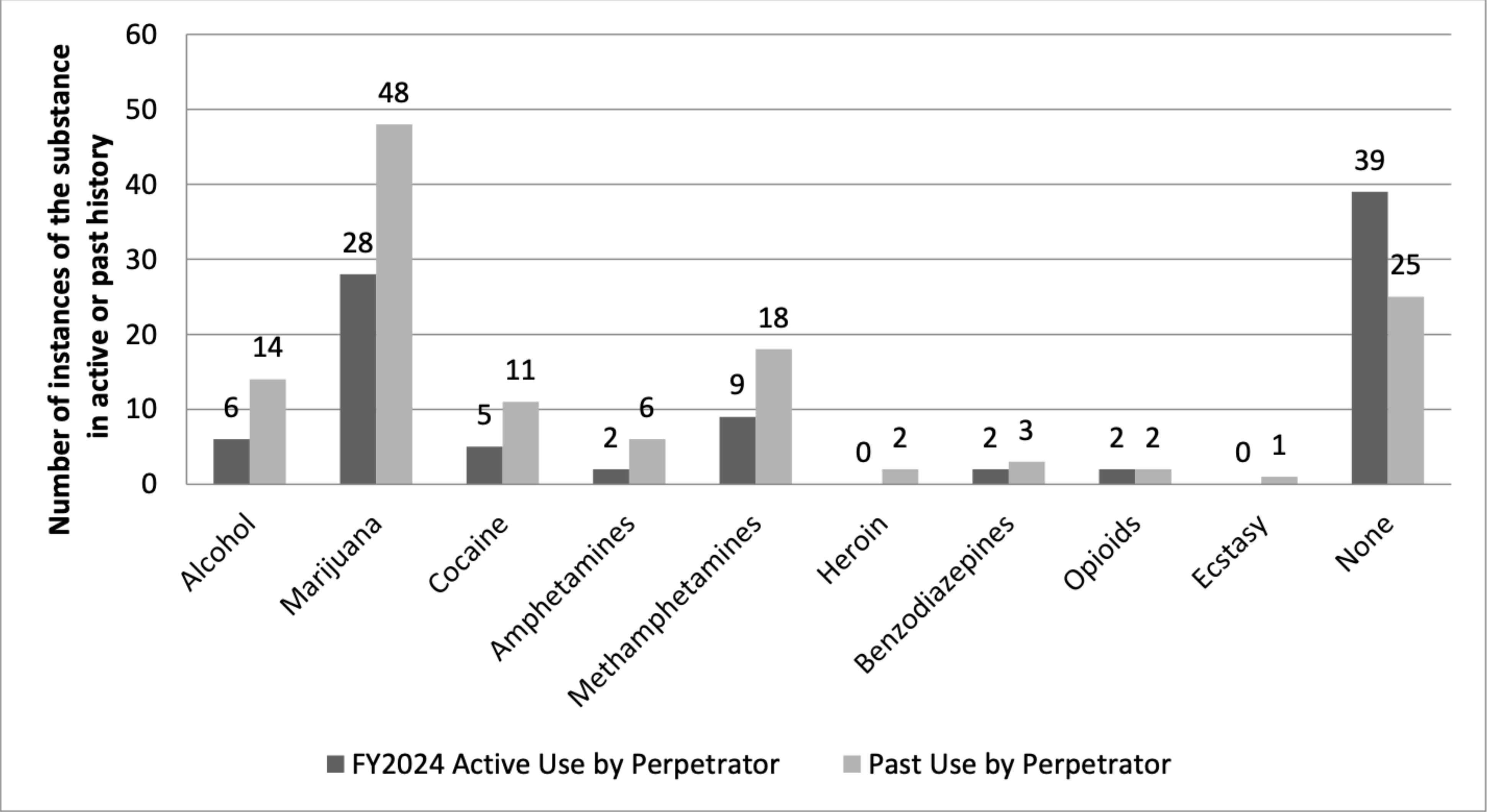


Figure 2. Percentage change of substance-related visits by substance from 2016 to 2021. Substance-related growth from 2016 by substance: Alcohol (A), Cannabis (B), Opioids (C), Stimulants (D), Hallucinogens (E), Sedatives (F), Nicotine (G), and Other Substances (H). Growth values were calculated by generalized estimating equations to develop percentage growth for each substance. Growth values calculated relative to number of visits, n, in 2016.

Pediatric marijuana ingestions rise more than 1,000%

- **Children under 5:** Cases increased by 1466.7% from 2016 to 2023
- **ED burden:** The proportion of total ED visits attributable to marijuana ingestion nearly tripled between 2016 and 2023
- **Disposition:** Hospital admissions to pediatric floors significantly increased while intensive care admissions remained stable

Figure 11. FY 2024 Confirmed Child Abuse or Neglect Fatality by Substance Abuse by Perpetrator



Fifty-four percent (63 cases) of neglect/abuse-related deaths involved substance use (Table 36). Of those, marijuana was the most identified substance, contributing to 44% of child neglect/abuse-related deaths, followed by alcohol (32%) (Table 37).

Table 37. Number and Percentage of Substance Type Identified in Neglect/Abuse-Related Deaths, Ages Birth to 17 Years, Arizona, 2023 (n=63)

Substance Type**	Number	Percent
Marijuana	28	44%
Alcohol	20	32%
Opiate	17	27%
Methamphetamine	10	16%
Other (i.e., Prescription Drugs, Cocaine)	*	*

*Number/Percentage suppressed due to count less than 6.

**More than one substance may have contributed to each death.

Prevalence Rates, Perceptions of Risk, and Motivations for Non-medical Cannabis Use in Pediatric Pain

- May 2025; JAMA
- 25% of treatment-seeking youths with chronic pain reported lifetime cannabis use, with **more than 75%** using cannabis instrumentally to treat symptoms **despite limited evidence** supporting cannabis for pain, sleep, or anxiety
- The **CU group** was older, included fewer female participants, and reported **greater pain interference scores** and **depressive symptoms scores**

Cannabinoids and Adverse Convulsive Effects

- August 2025
 - 3% had reports of **convulsive effects**
 - 23.3% related to **medical use** (27 CBD, 1 THC and 2 combined THC/CBD preparations)
 - 75.4% related to **recreational use**
 - 81.1% were serious cases

Infant Death due to Cannabis Ingestion

- May 2025; Drug Testing and Analysis
- Child exhibited alterations in walking, balance, and consciousness. Intubation was needed for the onset of dyspnea
- Cannabinoids were also observed in postmortem central blood, peripheral blood, urine, bile, brain, lung, and liver samples
- An increasing number of intoxication cases are being reported worldwide due to the legalization of cannabis



Association of Cannabis Use During Adolescence With Neurodevelopment

- June 2021; JAMA Psychiatry
- Cannabis use (from 0 to >40 uses) was **negatively** associated with **thickness** in left prefrontal and right prefrontal cortices
- Age-related **cortical thinning** was qualified by cannabis use in a dose-dependent fashion
- Greatest age-related thickness change in middle to late adolescence.

Non-disordered Cannabis Use Among US Adolescents

- May 3, 2023; JAMA
 - Nondisordered cannabis use in adolescents (non-CUD, subclinical)
 - Past-year NDCU was approximately 4 times as prevalent as past-year CUD
 - Individuals with NDCU had approximately 2 to 4 times greater odds of ALL adverse psychosocial events examined, including major depression, suicidal ideation, slower thoughts, difficulty concentrating, truancy, low grade point average, arrest, fighting, and aggression

Young Adult Depression and Cannabis Use: Associations Before and After Recreational Legalization

- September 2023; American Journal of Preventative Medicine
- The association between prevalence rates of young adult depression and cannabis use strengthened following recreational legalization in the US
- May be potentially due to increases in cannabis accessibility and the acceptance of the health benefits of cannabis, which may enhance the use of cannabis as a coping mechanism among young adults with depression

Suicidality

- March 2021: American Academy of Pediatrics
 - Current adolescent prescription opioid misuse is associated with increases in the risk for suicide-related behaviors
 - Adolescent marijuana use —> opioid misuse —> suicidality

Suicide Risk

- September 2022; J. Psychiatric Research
- Cannabis smoking increases the risk of suicide ideation and suicide attempt in young individuals of 11–21 years: A systematic review and meta-analysis
- Cannabis smoking **increased** the risk of suicide **attempt**, suicidal **ideation** and suicide **planning** in young individuals of 11–21 years of age

Cannabis Use Is Associated With Depression Severity and Suicidality

- July 2023; Journal of the American Academy of Child and Adolescent Psychiatry
- Cannabis use is associated with higher odds of depression and depression severity in adolescence.
- Depression and cannabis use are independently associated with higher odds of suicide attempt

For all charts below: the bars represent the values for selected population, the **yellow** reference bands are the values for the entire

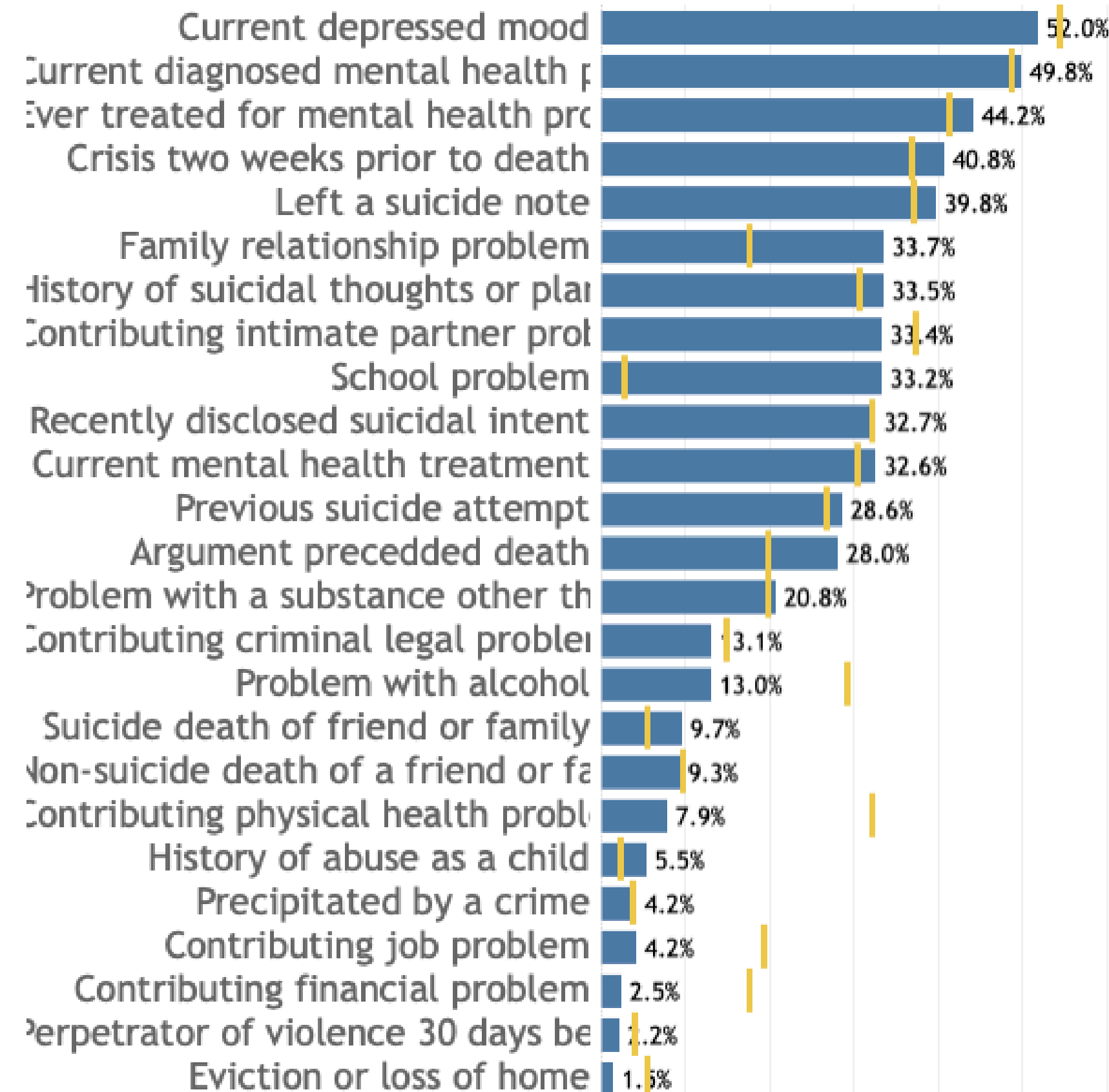
Circumstances

Entire state:

1+ circumstance:	18,465
No circumstance	935

Selected population:

1+ circumstance:	731
No circumstance	42



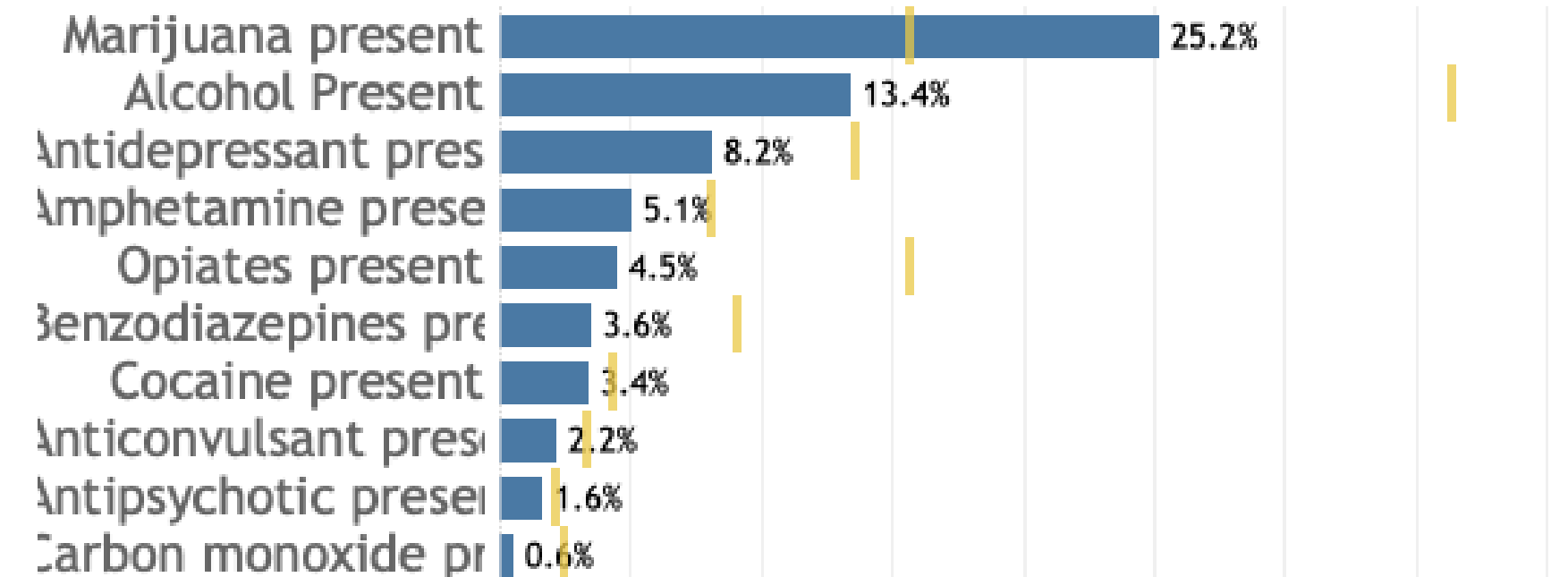
Toxicology

Entire state:

Toxicology info available	16,025
No toxicology info available	3,375

Selected population:

Toxicology info available	671
No toxicology info available	102



Location where fatal injury was inflicted

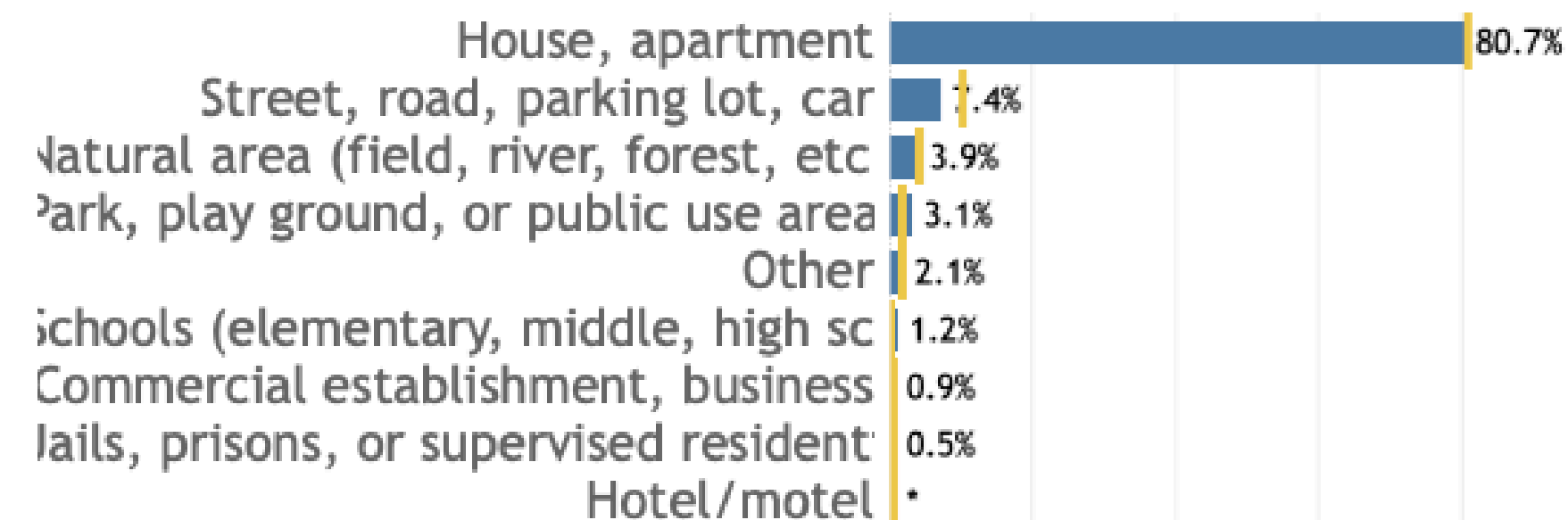


Table 2. Toxicology test results among non-natural, non-homicide deaths, Colorado residents younger than 25 years (population of interest), 2010-2021

Toxicology result*	Frequency	Percent (%) (n=2,165)
Toxicology test results available	2165	
No substance	650	30.0%
THC present	678	31.3%
Alcohol present	570	26.3%
Opioid present	513	23.7%
Amphetamine present	249	11.5%
Cocaine present	238	11.0%
Benzodiazepines present	185	8.5%
Antidepressant present	183	8.5%
Anticonvulsants present	73	3.4%
Antipsychotic present	53	2.4%
Carbon monoxide present	41	1.9%
Muscle relaxant present	10	0.5%
Barbiturates present	5	0.2%

<https://drive.google.com/drive/u/0/folders/1K0jYw-3spzb6F3OTOW1JLupdMK4Z5mfH>

Figure 5. Crude mortality rate of population of interest with substances present in postmortem toxicology test results per 100,000 Colorado residents younger than 25 years, Colorado, 2010-2021

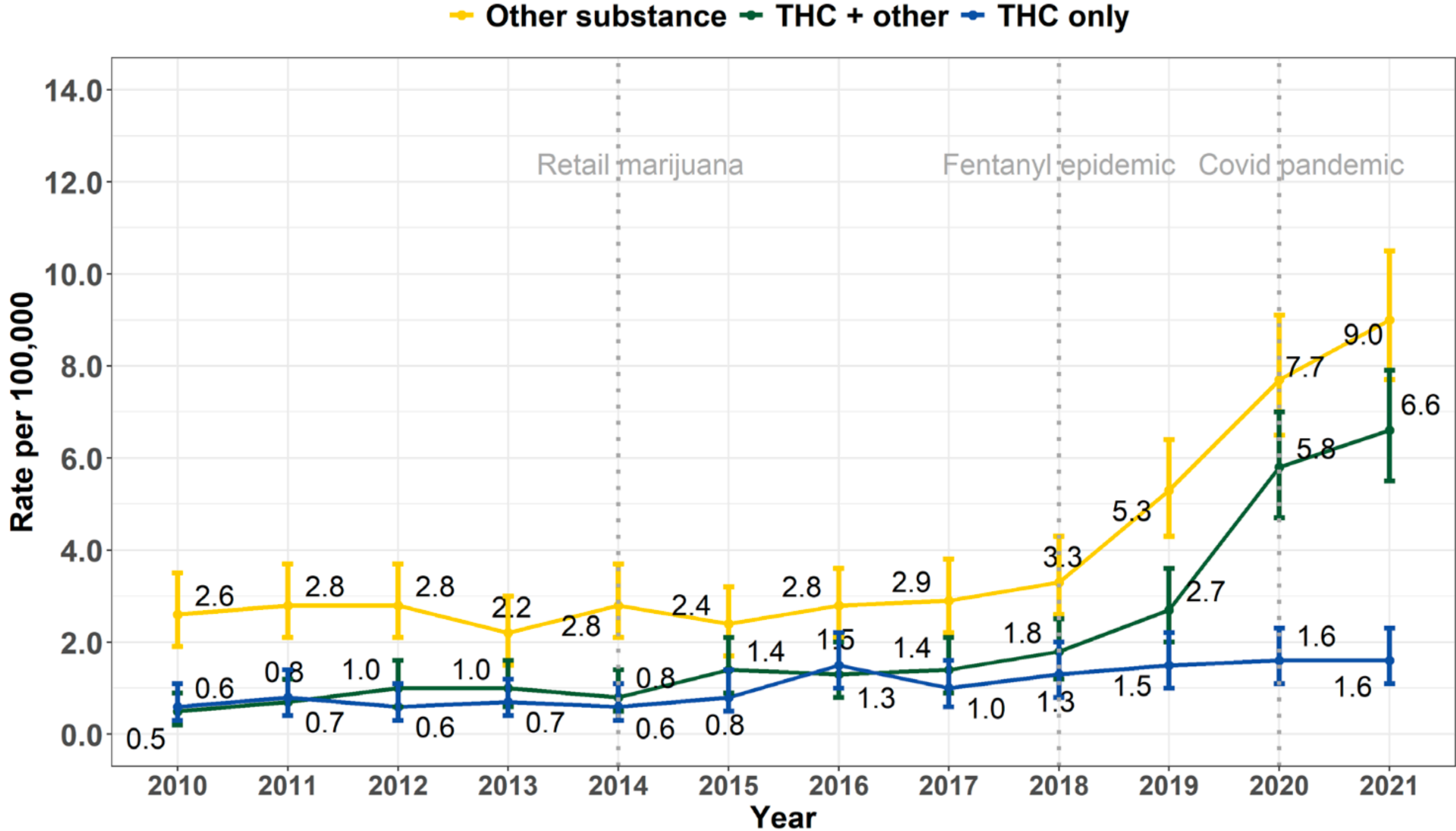
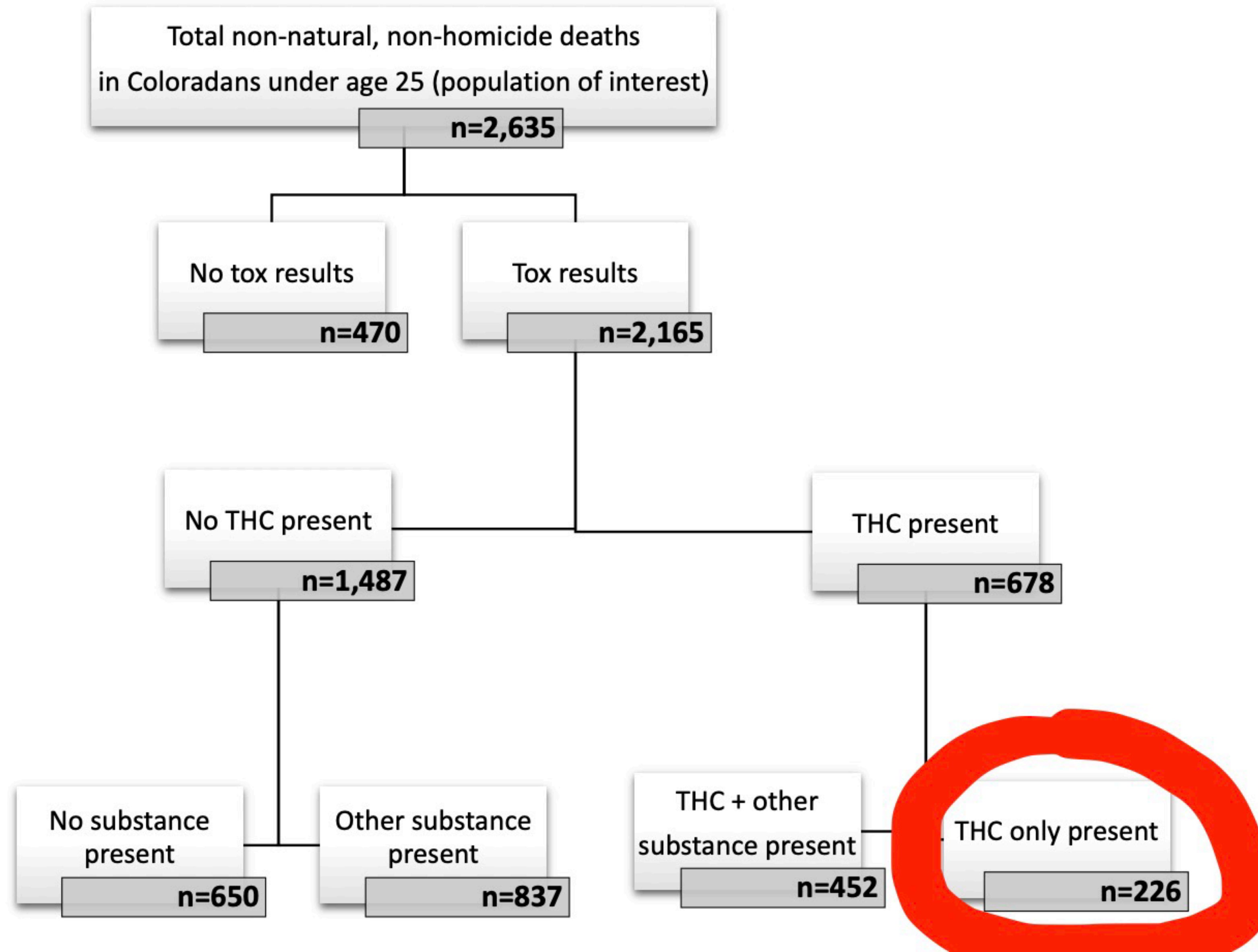
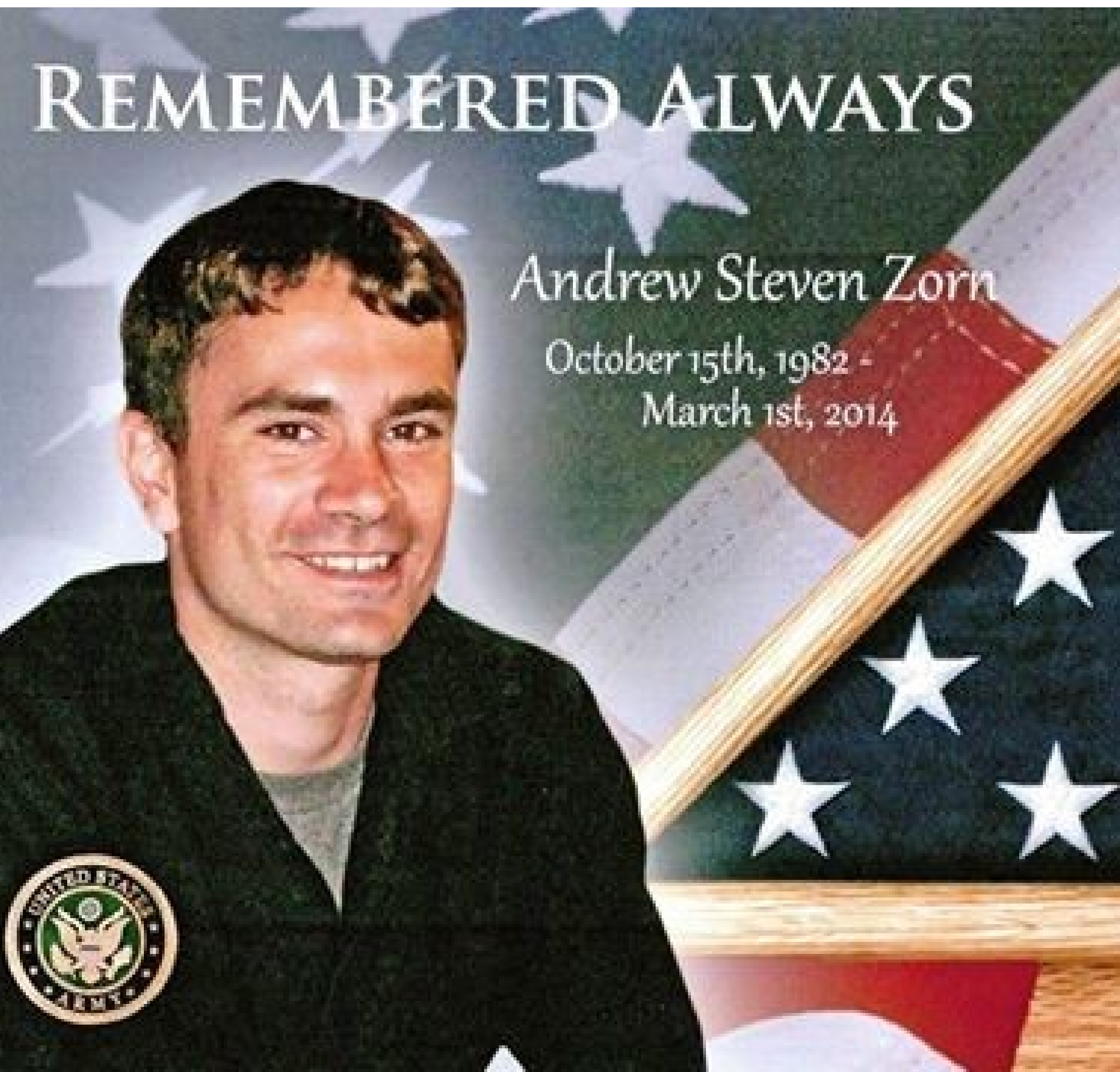


Figure 2. Toxicology test results by substance present, among non-natural, non-homicide deaths, Colorado residents younger than 25 years (population of interest), 2010-2021





I barely ever do what I want. I want to die. I am quitting while I am ahead. I don't want anyone to worry about me. I am setting my parents free. Otherwise I will only get worse. My soul is already dead. Marijuana killed my soul & ruined my brain. I am doing everyone a favor.

Age-dependent association of cannabis use with risk of psychotic disorder

- May 2024; Psychological Medicine
- N = 11,363
- Adolescent/teen use has **11x risk of developing psychosis**
- 5 out of 6 teens with psychotic symptoms **used cannabis**
- Strength of **association** during adolescence was notably **greater than in previous studies**, possibly reflecting the recent rise in **cannabis potency**.

<https://www.cambridge.org/core/services/aop-cambridge-core/content/view/BDCA0F73CDD7AF150D6FDCF89D29DC7F/S0033291724000990a.pdf/age-dependent-association-of-cannabis-use-with-risk-of-psychotic-disorder.pdf>

How has non-medical cannabis legalization served the health and welfare of under-age (adolescent) youth in Canada?

- May 2024; Lancet
- Under-age youth in Alberta (<18 years) and Ontario (<19 years), legalization was associated with a **20% increase-equivalent** (2015–2019) for **emergency department visits** involving cannabis-related **disorder/poisoning**,
- There were increases in cannabis-related (e.g., for psychosis, poisoning, withdrawal, harmful use) **hospitalizations** among young individuals (ages 15–24) in Canada's four largest provinces

Legalizing Youth-Friendly Cannabis Edibles and Extracts and Adolescent Cannabis Use

- April 2025; JAMA Network Open
- Cannabis legalization was associated with
 - 26% increase in the overall prevalence of cannabis use
 - 43% increase in edible cannabis use
 - 34% increase in cannabis smoking
 - 28% increase in co-use of alcohol and cannabis.
- The legalization was also associated with lower perception of cannabis harms.

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2832970?resultClick=3>

E-Cigarette and Cannabis Social Media Posts and Adolescent Substance Use

- June 2025
- Frequent exposure to **cannabis social media posts** was associated with solo e-cigarette use, solo cannabis use, and dual use initiation at 1-year follow-up.
- Exposure to e-cigarette posts from friends was associated with **past-month dual use**
- Exposure to friends' cannabis posts was also associated with **past-month cannabis and dual use.**

Figure 44. Top Modes of Marijuana Use Self-Reported to National Survey on Drug Use and Health

Mode of use	Users 12-17, 2022	Users 12-17, 2023	2023 Change from 2022
Smoking	76.6%	79.3%	▲ 2.7%
Vaping	59.7%	63.4%	▲ 3.7%
Dabbing Waxes, Shatter, or Concentrates	23.3%	16.9%	▼ -6.4%
Eating or Drinking	36.1%	38.5%	▲ 2.4%
Lotion, Cream, or Patches to the Skin	8.2%	4.9%	▼ -3.3%
Drops, Strips, Lozenges, or Sprays	2.2%	1.0%	▼ -1.2%

Source: National Survey on Drug Use and Health

Legalizing Youth-Friendly Cannabis Edibles and Extracts and Adolescent Cannabis Use

- April 2025; JAMA
- Cannabis legalization was associated with
 - a **26% increase** in the overall prevalence of cannabis use
 - a **43% increase** in edible cannabis use
 - a **34% increase** in cannabis smoking
 - a **28% increase** in co-use of alcohol and cannabis



These vapes didn't come from a gas station or vape shop...

They came from 6th, 7th, and 8th graders at ONE middle school.

After learning how harmful and addictive vaping really is, students came forward even asking their principal if they could bring in the ones they had at home to turn them in.

Geriatric



Trends in emergency department visits associated with cannabis use among older adults in California, 2005–2019

- January 2023; Journal of American Geriatrics Society
- 2005-2019
- Cannabis-related ED visit rate increased significantly for adults aged ≥ 65 and all subgroups (65-74, 75-84, >85)
- Overall rate increased from 20.7 per 100,000 visits in 2005 to 395.0 per 100,000 ED visits in 2019, a 1,804% relative increase

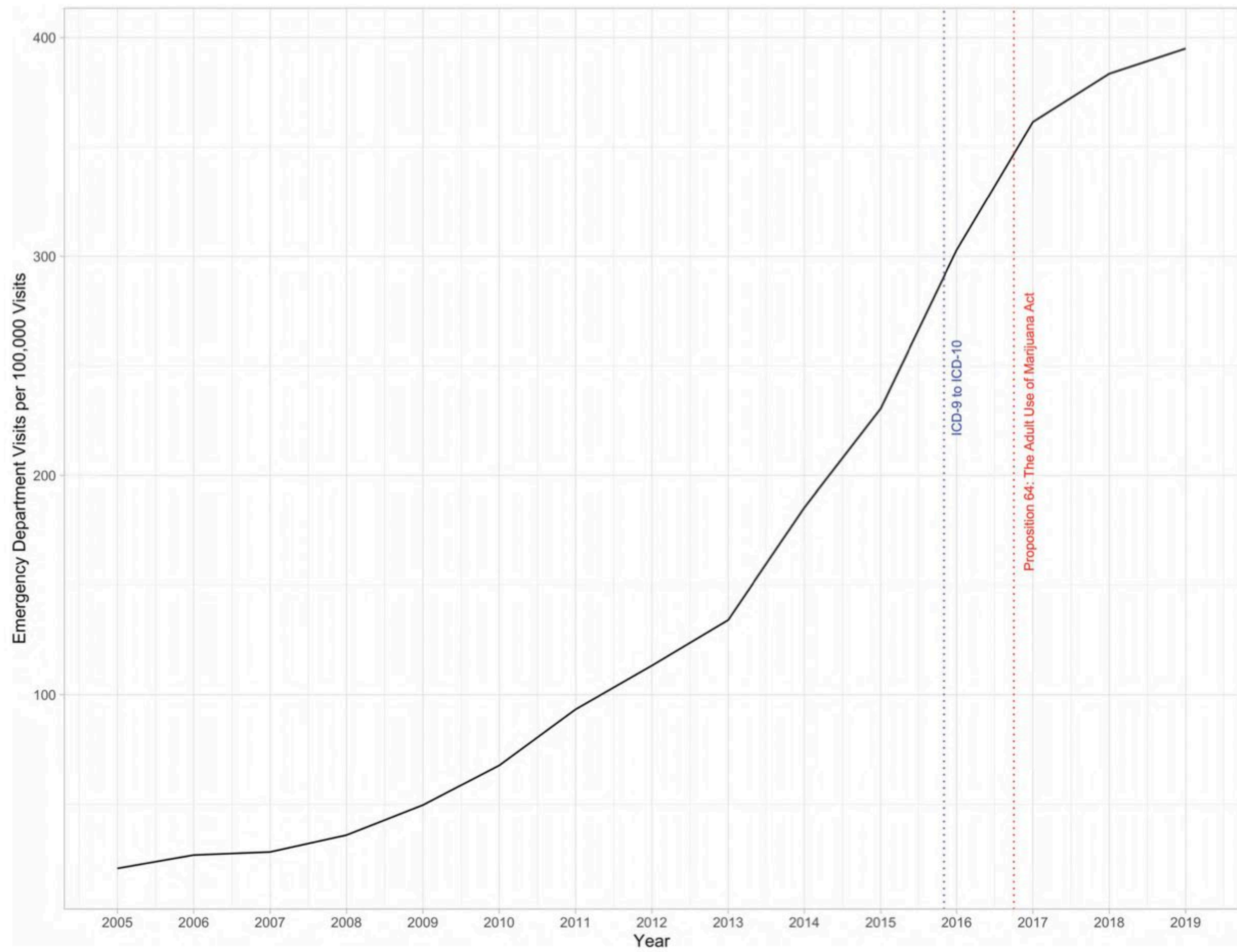


FIGURE 1 Trend in cannabis-related emergency department visit rate per 100,000 visits among adults aged 65 years and older in California, 2005–2019

Time to Act on a Growing Public Health Threat— Evidence of Elevated Mortality in Cannabis Use Disorder

- February 2025; JAMA Network Open; (n = 11 622 571 individuals)
- Being hospitalized for CUD showed:
 - **4x** more likely to die of an **opioid or other drug overdose**
 - **180%** increase in 5-year **all cause mortality** risk
 - **870%** increase in **suicide risk**
 - **280%** increase in **lung cancer death**

Risk of Dementia in Individuals With Emergency Department Visits or Hospitalizations Due to Cannabis

- April 2025; JAMA Neurology
- Annual rates of incident acute care due to cannabis use increased **500%** in individuals aged 45 to 64 years and **2700%** in individuals aged 65 years or older between 2008 and 2021
- Individuals with cannabis use severe enough to require hospital-based care were at **increased risk of a new dementia diagnosis** compared with those with all-cause hospital-based care or the general population

<https://jamanetwork.com/journals/jamaneurology/fullarticle/2832249>

Cannabis Use Among Older Adults

- May 2025; JAMA Network Open
- In older veterans, use was common, and **more than one-third** who used in the past 30 days had any CUD
- Frequent and inhaled cannabis use was associated with **higher odds** of any CUD

Trends in Past-Month Cannabis Use Among Older Adults

- July 2025; JAMA Internal Medicine
- Studies show an increase in past-year use of cannabis by adults aged 65 years or older from less than 1.0% in **2005** to 4.2% in **2018**
- Prevalence of past-month cannabis use among older adults **increased** significantly from 4.8% in **2021** to 7.0% in **2023**
- **45.8% increase** in 2 years

Colorado Hospitalizations related to Cannabis

- 2024 Report from CDPHE (2022 data)
- Total hospital discharges, 2022: 476,281
- Hospital discharges with cannabis code: 12,324
- Hospital discharges with cannabis-only code: 7,177 (58.2%)
- Equates to: 598 cannabis-only hospitalizations PER MONTH
- 149 cannabis-only hospitalizations PER WEEK
- 21 cannabis-only hospitalizations PER DAY

Action Plan

- Cannabis is not a medication. Cannabis is a plant
- Support drug-development process for cannabinoids, including evidence-based dosing guidelines of cannabis-based medications
- Support potency cap (10% THC?)
- Eliminate home grows: breeding ground for illegal activity
- Track, monitor, and document public health impact (health care utilization, ER, birth defects, etc)
- Monitor and publish environmental impacts

Action Plan

- Mandatory drug testing for all violent crimes (cannabis induced psychosis)
- Monitor adolescent use closely
- Discourage smoking and vaping (EVALI)
- Discourage use during pregnancy and lactation
- Drug testing/toxicology on all suicides, including adolescents
- Monitor marijuana-related driving fatalities

“Truth Coming Out of Her Well” by Jean-Léon Gérôme

The Lie said to the Truth, "Let's take a bath together, the well water is very nice. The Truth, still suspicious, tested the water and found out it really was nice. So they got naked and bathed.

But suddenly, the Lie leapt out of the water and fled, wearing the clothes of the Truth.

The Truth, furious, climbed out of the well to get her clothes back. But the World, upon seeing the naked Truth, looked away, with anger and contempt.

Poor Truth returned to the well and disappeared forever, hiding her shame. Since then, the Lie runs around the world, dressed as the Truth, and society is very happy...

Because the world has no desire to know the naked Truth

